STATE OF ALASKA

For the Fiscal Year
July 1, 1989 - June 30, 1990

ANNUAL FINANCIAL REPORT

PUBLIC EMPLOYEES' RETIREMENT SYSTEM
TEACHERS' RETIREMENT SYSTEM

Prepared by
Department of Administration
Division of Retirement and Benefits

COMPONENT UNIT
ANNUAL FINANCIAL REPORT
FISCAL YEAR ENDED JUNE 30, 1990

Walter J. Hickel, Governor

COVER: Designed by Alaska Department of Fish and Game

PHOTO: Mendenhall Glacier and Towers, by John Hyde, courtesy of Alaska Department of Fish and Game

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This publication is not a plan document. It is a compilation of the reports issued by Coopers & Lybrand; William M. Mercer, Inc.; and the State of Alaska, Department of Revenue, Treasury Division as well as information gathered by the Division of Retirement and Benefits. References have been made in various sections that summarize the Public Employees' and Teachers' Retirement System plans but are not intended to fully describe the plans. Specific questions about either plan should be addressed by referring to the plan documents or calling the Division of Retirement and Benefits.

WALTER J. HICKEL, GOVERNOR

DEPARTMENT OF ADMINISTRATION

OFFICE OF THE COMMISSIONER

P.O. BOX C
JUNEAU, ALASKA 99811-0200
PHONE: (907) 465-2200
FAX: (907) 465-2135

December 17, 1990

The Honorable Walter J. Hickel
Governor of Alaska
P.O. Box A
Juneau, AK 99811

Dear Governor Hickel:

It is my pleasure to submit to you the Annual Report of the Alaska Public Employees' Retirement System (PERS) and Teachers' Retirement System (TRS).

This report shows the financial condition of both the PERS and TRS funds as of June 30, 1990. It has been prepared on the basis of standards set forth by the Governmental Accounting Standards Board and Financial Accounting Standards Board and is submitted in accordance with the requirements of Alaska Statutes 39.35.020(5) (PERS) and 14.25.030(4) (TRS).

Sincerely,

Millett Keller
Commissioner

MK/tz
19/6/AFR90GOV.PM3
Enclosure

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TEACHERS' RETIREMENT SYSTEM

INTRODUCTORY SECTION

WALTER J. HICKEL, GOVERNOR

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DEPARTMENT OF ADMINISTRATION

DIVISION OF RETIREMENT AND BENEFITS

December 17, 1990

Commissioner Millett Keller
P.O. Box C
Department of Administration
Juneau, Alaska 99811--0200

Dear Commissioner Keller:

The Annual Financial Report of the Public Employees' (PERS) and Teachers' (TRS) Retirement Systems for the fiscal year ended June 30, 1990, is hereby submitted. Responsibility for both the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rests with the Systems. To the best of my knowledge and belief, the enclosed data are accurate in all material respects and are reported in a manner designed to present fairly the financial position and results of operations of the Systems. All disclosures necessary to enable the reader to gain an understanding of the Systems' financial activities have been included.

While only summarized in this letter, the Introductory, Public Employees' Retirement System, and Teachers' Retirement System Sections of the report provide details for each system that will enable the reader to see the results of another successful year.

REPORTING ENTITY

The Legislature established the Teacher's Retirement System (TRS) on July 1, 1955, and the Public Employees' Retirement System (PERS) on January 1, 1961, to attract and retain qualified people in public service employment. In addition to providing retirement benefits, the Systems also offer other valuable items such as disability and death benefits.

	FY 1990		FY 1989		FY 1988	
	PERS	TRS	PERS	TRS	PERS	TRS
Number of participating employers (reporting entities)	143	60	135	61	123	63
Number of participating members	29,086	8,586	28,058	8,527	26,676	8,218
Number of retired members	7,365	3,184	6,967	3,098	6,702	2,972
Average Annual Retirement Benefit	$11,628	$22,236	$11,472	$21,708	$11,328	$21,240
Average Annual Retiree Medical Premium	$2,990	$2,990	$2,743	$2,743	$1,683	$1,683

MAJOR INITIATIVES

The following legislation affecting the retirement systems passed during the 1990 legislative session:

▲ Chapter 18, SLA 1990, amended the 1989 Retirement Incentive Program (RIP) to:

(1) increase the period within which savings in personal services costs must be shown from three years to five years;

(2) allow members to pay part of their employers' costs if their retirements do not result in a savings over a five year period;

(3) extend the application period until March 31, 1991, for political subdivision members; and

(4) extend the retirement deadline for employees of the State Division of Elections until February 1, 1991.

▲ Chapter 40, SLA 1990, abolished the Public Employees' and Teachers' Disability Review Board. Chapter 40 also adds two physician board members to the existing PERS and TRS Boards to review applications for disability and determine eligibility for disability benefits.

▲ Chapter 47, SLA 1990, places probation officers under the "peace officer" provision of the PERS.

▲ Chapter 79, SLA 1990, allows TRS members who have a combination of 20 years of part-time and full-time membership service to retire at any age. Chapter 79 also established a new window period for TRS members with combined service to apply and retire under the RIP.

▲ Chapter 97, SLA 1990, provides for automatic post retirement pension adjustments annually and increased benefits for 20 years of service to TRS members. This law established various cost containment measures to help pay for the increased benefits which include:

(1) raising the age for normal retirement from 55 to 60 for new members who are first hired under the TRS after June 30, 1990;

(2) increasing members' contributions and requiring that those contributions be deducted from members' wages prior to withholding federal income taxes;

(3) limiting retiree medical insurance and the Alaska cost of living allowance to new members who are under age 65, unless they are disabled;

(4) increasing the cost of claiming military and Alaska Bureau of Indian Affairs service for new members; and

(5) prohibiting military service for new members who are entitled to federal retirement benefits for the same military service.

Chapter 97 also added a new provision to recognize vesting for TRS members who have completed at least 12 school years of part-time membership service.

ACCOUNTING SYSTEM AND REPORTS

The accrual basis of accounting is used in recording financial transactions. Revenues are recognized in the accounting period in which they are earned and become measurable without regard to the date of collection. Expenses are recorded when the corresponding liabilities are incurred, regardless of when payment is made. Under our cash management program receipts are deposited as received. They are recorded as undistributed deposits until they are allocated to member contributions, employer contributions, or investment income.

Management is responsible for establishing and maintaining an internal control structure for the Systems that provides reasonable assurances regarding the safeguarding of assets and the reliability of financial records.

ASSETS

At June 30, 1990, the PERS net assets totalled $2,746,555,000 and those of the TRS totaled $1,706,346,000. This was a PERS increase of 12.0% and a TRS increase of 10.4% over the prior year.

REVENUES

Funding for the Systems benefits is provided through investment income and the collection of employer and employee contributions. The revenue sources for the years ending June 30, 1990 and 1989 are shown as follows:

	PERS		TRS	
	1990	1989	1990	1989
Investment Income	$251,259,000	$302,741,000	$158,741,000	$190,413,000
Employer Contributions	96,418,000	78,932,000	53,670,000	47,348,000
Member Contributions	69,720,000	65,104,000	35,224,000	31,888,000
Total	**$417,397,000**	**$446,777,000**	**$247,635,000**	**$269,649,000**

EXPENSES

The primary expense of a retirement system is the payment of benefits. Consequently, recurring benefit payments, refunds of contributions to terminated employees and the cost of administering the Systems comprise the total expenses of the systems. The expenditures for the years 1990 and 1989 are reflected below:

	PERS		TRS	
	1990	1989	1990	1989
Benefits	$107,443,000	$100,454,000	$80,847,000	$73,401,000
Refunds	11,237,000	11,188,000	2,896,000	2,953,000
Administration	5,124,000	5,868,000	3,423,000	3,993,000
Total	**$123,804,000**	**$117,510,000**	**$87,166,000**	**$80,347,000**

FUNDING

Funds accrue from the excess of revenues over expenses and are accumulated by the Systems to meet current and future benefit obligations. An annual actuarial valuation provides the best assurance that funds will be available for current and future benefit payments.

The difference between the Systems' net assets and the present value of credited projected benefits, or "projected benefit obligation," is the unfunded accrued liability, also referred to as the "unfunded pension benefit obligation." The unfunded pension benefit obligation as of June 30, 1989, was $214,845,000 for PERS and $77,254,000 for TRS.

The percentage computed by dividing the pension benefit obligation by the net assets is generally referred to as the funding ratio. The funding ratio increases as the assets available for benefits increase in proportion to the present value of benefits that have been earned. The higher the level of funding, the larger the ratio of assets accumulated and the greater the level of investment income potential. A high level of funding gives the members a greater degree of assurance that pension benefits are secure. Although the historical level of funding for the systems is good, constant effort will continue to be directed at improving funding levels, thereby assuring the members of a financially sound retirement system. The current funding ratio, as of June 30, 1989, is 91.6% for PERS and 95% for TRS.

PROFESSIONAL SERVICES

Professional consultants are hired to perform services essential to the efficient operation of the Systems. Actuarial services are provided by William M. Mercer, Incorporated. The annual financial audit of the Systems was conducted by the accounting firm of Coopers & Lybrand. The Systems' investment function is managed by the Alaska Department of Revenue, Division of Treasury.

ACKNOWLEDGEMENTS

The cooperation of the PERS and TRS employers contributes significantly to the success of the Systems. We thank them for their continuing support.

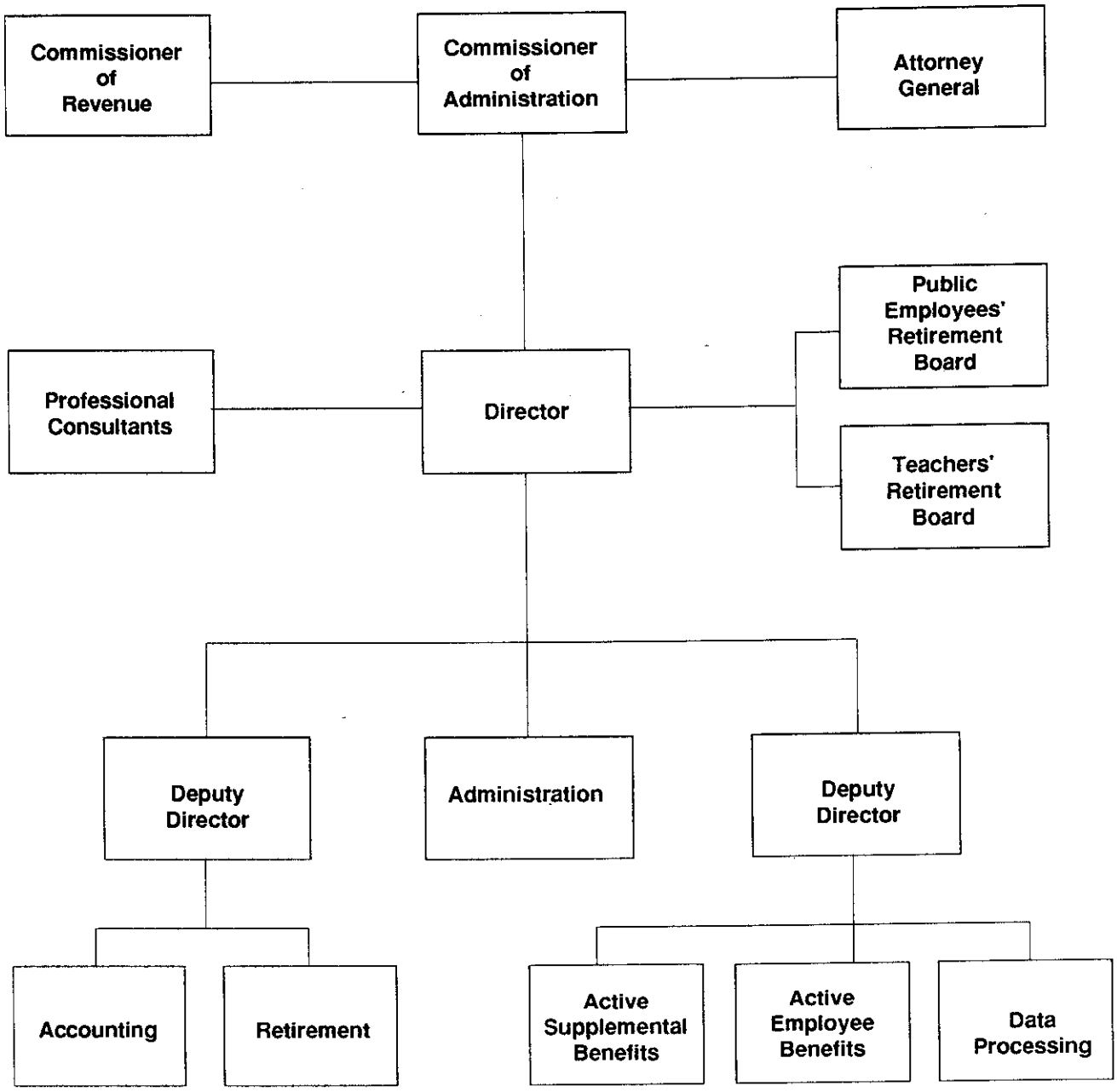
The compilation of this report reflects the combined effort of the Systems' staff. The information is intended to provide complete and reliable information to make sound management decisions, which protect the assets contributed by the members and their employers. The report is being mailed to all employers in the Systems and other interested persons.

Respectfully submitted,

Gary M. Bader
Acting Director

GMB/KG/tz
19/6/AFR90ILT.PM3
Enclosure

ORGANIZATIONAL CHART



ADMINISTRATIVE STAFF

Director	Vacant
Deputy Director	Robert Stalnaker
Deputy Director	Michael Coughlin
Administrative Supervisor	David Thomson
Accounting Supervisor	Jerome Walkush
Retirement Supervisor	Dave Stout
Supplemental Benefits Supervisor	Mike Halverson
Benefits Supervisor	Janet Parker
Data Processing Supervisor	Pat Henry

PROFESSIONAL CONSULTANTS

Actuary	William M. Mercer, Inc.
Assistant Attorney General	Virginia Ragle
Auditor	Coopers & Lybrand, CPA
Benefits Advisor	Deloitte-Touche
Legal Advisor - Boards	Robert Johnson, Attorney
Insurance Carrier	Aetna Life Insurance Co.
Medical Advisor	Willard Andrews, M.D.

PUBLIC EMPLOYEES' RETIREMENT SYSTEM

PUBLIC EMPLOYEES' RETIREMENT BOARD

James "Pat" Wellington, Chair
Term Expires: 4/5/96

Michael Andrews, Vice Chair
Term Expires: 6/20/94

S. J. Buckalew
Term Expires: 6/20/96

Eleanor Andrews
Term Expires: 6/20/92

Mary A. Notar
Term Expires: 4/5/96

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FINANCIAL SECTION

Coopers
&Lybrand

certified public accountants

Report of Independent Accountants

Division of Retirement and Benefits and
Members of the Alaska Public Employees'
Retirement Board
State of Alaska
Public Employees' Retirement System
Juneau, Alaska

We have audited the accompanying statements of net assets available for benefits of the State of Alaska Public Employees' Retirement System as of June 30, 1990 and 1989, and the related statements of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the management of the State of Alaska, Department of Administration, Division of Retirement and Benefits. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits as of June 30, 1990 and 1989, and changes in net assets available for benefits for the years then ended, in conformity with generally accepted accounting principles.

The supplemental schedules of funding progress and revenues by source and expenses by type are not a required part of the basic financial statements of the State of Alaska Public Employees' Retirement System but are required by the Governmental Accounting Standards Board. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit this information and express no opinion on it.

Coopers & Lybrand

Anchorage, Alaska
September 8, 1990

STATE OF ALASKA
PUBLIC EMPLOYEES' RETIREMENT SYSTEM

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS

June 30, 1990 and 1989

($000)

	1990	1989
Assets:		
Investments, at fair value :		
United States Government securities	$ 969,468	$ 1,059,796
Corporate bonds, notes and debentures	346,189	269,548
Domestic equity fund	854,128	665,998
International equities	198,346	148,654
Real estate equity funds	154,163	148,353
Total investments	2,522,294	2,292,349
Loans and mortgages, at cost, net of allowance for loan losses of $6,191 in 1990 and $6,382 in 1989	96,783	104,638
Receivables:		
Contributions	4, 129	3,765
Retirement incentive program	9, 146	6,618
Accrued interest and dividends	29,856	28,975
Total receivables	43,131	39,358
Cash and cash equivalents	88,794	21,165
Total assets	2,751,002	2,457,510
Liability - accrued expenses	4,447	4,548
Net assets available for benefits	$2,746,555	$2,452,962

The accompanying notes are an integral part of the financial statements.

STATE OF ALASKA
PUBLIC EMPLOYEES' RETIREMENT SYSTEM

STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

for the years ended June 30, 1990 and 1989

($000)

	1990	1989
Additions:		
Investment income :		
Net appreciation in fair value of investments	$ 17,469	$ 108,088
Interest	145, 108	123,088
Dividends	32, 269	33,848
Net realized gains on sales	56,605	38,584
Total investment income before provision for losses on loans and mortgages	251,451	303,608
Provision for losses on loans and mortgages	(192)	(867)
Net investment income	251, 259	302,741
Contributions:		
State of Alaska and other employers	88,322	78,932
Employees	69,344	65,104
Retirement incentive program:		
State of Alaska and other employers	8,096	
Employees	376	
Total contributions	166,138	144,036
Total additions	417,397	446,777
Deductions:		
Benefits paid:		
Retirement	85,301	82,389
Medical	22,142	18,065
Total benefits paid	107,443	100,454
Refunds to terminated employees	11,237	11,188
Administrative expenses	5,124	5,868
Total deductions	123,804	117,510
Net increase	293,593	329,267
Net assets available for benefits:		
Beginning of year	2,452,962	2,123,695
End of year	$ 2,746,555	$ 2,452,962

The accompanying notes are an integral part of the financial statements.

STATE OF ALASKA
PUBLIC EMPLOYEES' RETIREMENT SYSTEM

NOTES TO FINANCIAL STATEMENTS

1. Description of State of Alaska Public Employees' Retirement System (Plan):

The following brief description of the Plan is provided for general information purposes only. Participants should refer to the Plan agreement for more complete information.

General

The Plan is the administrator of an agent multiple-employer public employee retirement system established and administered by the State of Alaska (State) to provide pension benefits for eligible State employees and employees of its local government. Benefit and contribution provisions are established by State law and may be amended only by the State Legislature. The Plan is considered a part of the State financial reporting entity and is included in the State's financial reports as a pension trust fund. At June 30, 1990, the number of participating local government employers was:

Municipalities	73
School districts	50
Other	20
Total employers	143

Inclusion in the Plan is a condition of employment for eligible State employees except, as otherwise provided, for elected officers. Any local government in the State may elect to have its permanent general, police and fire department employees covered by the Plan. At June 30, 1989, Plan membership consisted of:

Retirees and beneficiaries currently receiving benefits and terminated employees entitled to future benefits	9,281
Current employees :	
General	25, 630
Police and fire	2, 414
	28,044
Total	37, 325

Continued

1. **Description of State of Alaska Public Employees' Retirement System (Plan), Continued:**

General, Continued

Current employees :	
Vested:	
General	13,345
Police and fire	1,598
Nonvested:	
General	12,285
Police and fire	816
Total	28,044

Pension Benefits

Employees hired prior to July 1, 1986 with five or more paid-up years of credited service are entitled to annual pension benefits beginning at normal retirement age, fifty-five, or early retirement at age fifty. For employees hired after June 30, 1986, the normal and early retirement ages are sixty and fifty-five, respectively. Employees with thirty or more years of credited service (twenty years for peace officers and firemen) may retire at any age and receive a normal benefit.

The normal annual pension benefit is based on years of service and average monthly compensation. The average monthly compensation is based on the three highest years salaries. The benefit related to all years of service earned prior to July 1, 1986, and for years of service through a total of 10 years is equal to 2% of the employee's average monthly compensation for each year of service. The benefit for over 10 years of service subsequent to June 30, 1986 is equal to 2-1/4% of the employee's average monthly compensation for the second ten years and 2-1/2% for all remaining years of service. Minimum benefits for employees eligible for retirement are $25 per month for each year of credited service.

Married employees must receive their benefits in the form of a joint and survivor annuity unless their spouses consent to another form of benefit.

Major medical benefits are provided without cost to all employees first hired before July 1, 1986. Employees first hired after June 30, 1986 may elect major medical benefits.

Continued

1. **Description of State of Alaska Public Employees' Retirement System (Plan), Continued:**

Death and Disability Benefits

If an active employee dies from occupational or nonoccupational causes, the spouse may receive a monthly pension from the Plan. When death is due to occupational causes and there is no surviving spouse, the employee's dependent child(ren) may receive a monthly pension until they are no longer dependents. The amount of the occupational death pension changes on the date the employee's normal retirement would have occurred if the employee had lived. The new benefit is based on the employee's average monthly compensation at the time of his/her death and the credited service that would have occurred had the employee lived and continued to work until normal retirement date.

Active employees who become permanently disabled due to occupational or nonoccupational causes receive disability benefits until normal retirement age. At normal retirement age the disabled employees begin receiving normal retirement benefits.

Effect of Plan Termination

Should the Plan terminate at some future time, its net assets generally will not be available on a pro rata basis to provide participants' benefits. Whether a particular participant's accumulated Plan benefits will be paid depends on the priority of those benefits at that time. Some benefits may be fully or partially provided for by the then existing assets while other benefits may not be provided for at all.

2. **Summary of Significant Accounting Policies:**

Basis of Accounting

The Plan's financial statements are prepared using the accrual basis of accounting.

Continued

2. Summary of Significant Accounting Policies, Continued:

Valuation of Investments

Investments, other than real estate equity funds and loans and mortgages, are carried at market value to reflect their asset values as determined by the last quoted market price at June 30, 1990 and 1989.

Real estate equity funds are stated at estimated market value as determined by the independent management of the investment accounts. These investments do not have a readily available market and generally represent long-term investments.

Loans and mortgages are serviced by the institution from which the loan is purchased. The policy of the Plan is to hold these investments until maturity and, accordingly, the investments are stated at cost, less an allowance for estimated loan losses. Loans and mortgages include approximately $13,982,000 and $12,548,000 for 1990 and 1989, respectively, of other real estate owned. Other real estate owned represents properties on which the Plan has foreclosed and is holding with the intent to resell.

The investment activity of all common stocks was consolidated October 1, 1987 with the common stocks of other State funds to form a domestic equity fund. The activity and the June 30, 1990 and 1989 balances of this domestic equity fund are accounted for on a unit-accounting basis. All income and realized and unrealized gains are allocated monthly to each participating fund on a pro-rata ownership basis. All income earned is included in dividend income. At June 30, 1990, and 1989, the Plan's investment in the domestic equity fund is comprised of the following ($000) :

	1990	1989
Domestic equities	$793,529	$590,370
Interest and dividends receivables	2, 377	1,887
Cash and cash equivalents	58,222	73,741
	$854,128	$665,998

Continued

2. Summary of Significant Accounting Policies, Continued:

Valuation of Investments, Continued

International equities at June 30, 1990 and 1989 are comprised of the following ($000) :

	1990	1989
Foreign equities	$188,128	$134,561
Cash and cash equivalents	10,218	14,093
	$198,346	$148,654

Cash and cash equivalents at June 30, 1990 and 1989 are comprised of the following:

	1990	1989
Interest bearing deposits	$ 18,733	$ 18,600
Investment maturities in transit	64,000	
Repurchase agreements	6,061	2,565
	$88,794	$21,165

State of Alaska treasury investment policy requires that securities underlying repurchase agreements must have a minimum market value of 102% of the cost of the repurchase agreement.

The Commissioner of Revenue has the statutory authority to invest the monies of the Plan. This authority is delegated to investment officers of the Treasury Division of the Department of Revenue. Alaska Statute provides for the investment in United States Treasury or agency securities; corporate debt securities; preferred and common stock; commercial paper; securities of foreign governments, agencies and corporations; foreign time deposits; gold bullion; futures contracts for the purpose of hedging; real estate investment trusts; deposits within Alaska savings and loans and mutual savings banks; deposits with state and national banks in Alaska; guaranteed loans; notes collateralized by mortgages; certificates of deposit and banker's acceptances.

Continued

2. Summary of Significant Accounting Policies, Continued:

To provide an indication of the level of credit risk assumed by the Plan at June 30, 1990, the Plan's deposits and investments are categorized as follows:

Deposits

Category 1 - Insured or collateralized with securities held by the State or its custodian in the State's name.

Category 2 - Collateralized with securities held by the pledging financial institution's trust department or custodian in the State's name.

Category 3 - Uncollateralized.

Investments

Category 1 - Insured or registered for which the securities are held by the State or its custodian in the State's name.

Category 2 - Uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent in the State's name.

Category 3 - Uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent but not in the State's name.

	Category ($000) #1	#2	#3	Market value (Carrying value)
Deposits - cash	$ 88,794			$ 88,794
Investments:				
United State Government securities	969,468			969,468
Corporate bonds, notes and debentures	346,189			346,189
Domestic equity fund	854,128			854,128
International equities		$198,346		198,346
Real estate equity funds	154,163			154,163
	$2,412,742	$198,346	$-0-	$2,611,088

Continued

2. **Summary of Significant Accounting Policies, Continued:**

Investments, Continued

During 1990 and 1989, the Plan's investments (including investments bought, sold, as well as held during the year) appreciated (depreciated) in value as follows ($000) :

	1990	1989
United States Government securities	$ (26, 656)	$ 51,389
Corporate bonds, notes and debentures	(8,814)	17,884
Domestic equity fund	45, 214	30, 628
International equity	8,293	2,604
Real estate equity funds	(568)	5,583
	$ 17,469	$108,088

The cost, market and carrying values of the Plan's investments at June 30, 1990 and 1989 are as follows ($000) :

	1990		
	Cost	Market	Carrying Value
United States Government securities	$ 906,484	$ 969,468	$ 969,468
Corporate bonds, notes and debentures	340,104	346,189	346,189
Domestic equity fund	758,775	854,128	854,128
International equities	183,654	198,346	198,346
Real estate equity funds	140,027	154,163	154,163
Loans and mortgages, net of allowance for loan losses of $6,191	96,783	100,355	96,783
	$2,425,827	$2,622,649	$2,619,077

Continued

2. Summary of Significant Accounting Policies, Continued:

Investments, Continued

	1989		
	Cost	Market	Carrying Value
United States Government securities	$ 970,156	$1,059,796	$1,059,796
Corporate bonds, notes and debentures	254,649	269,548	269,548
Domestic equity fund	815,859	665,998	665,998
International equities	142,255	148,654	148,654
Real estate equity funds	133, 649	148,353	148,353
Loans and mortgages, net of allowance for loan losses of $6,382	104,638	111,740	104,638
	$2,421,206	$2,404,089	$2,396,987

Contributions Receivable

Contributions from employees and employers for service through June 30 are accrued. These contributions are considered fully collectible and, accordingly, no allowance for uncollectible receivables is reflected in the financial statements.

Accrued Interest and Dividends

Accrued interest and dividends represent amounts earned but not yet received as of June 30. These amounts are considered fully collectible and, accordingly, no allowance for uncollectible receivables has been reflected in the financial statements. Accrued interest on loans and mortgages is not recorded until received.

Reclassifications

Certain items in the 1989 financial statements have been reclassified to conform to the 1990 presentation.

3. Funding Status and Progress:

The amount shown below as "pension benefit obligation," which is the actuarial present value of credited projected benefits, is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date. This measure is intended to help users assess the Plan's funding status on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make comparisons among plans. The measure is independent of the actuarial funding method used to determine contributions to the Plan, discussed in Note 4 below.

The pension benefit obligation is determined by William M. Mercer, Incorporated and is that amount that results from applying actuarial assumptions to adjust the accumulated benefits to reflect the time value of money (through discounts for interest) and the probability of payment (by means of decrements such as for death, disability, withdrawal, or retirement) between the valuation date and the expected date of payment. The significant actuarial assumptions used in the valuations as of June 30, 1989 are as follows:

a. Actuarial cost method - projected unit credit, unfunded accrued benefit liability amortized over twenty-five years, funding surplus amortized over five years.

b. Mortality basis - 1984 Unisex Pension Mortality Table set back one and one-half years.

c. Retirement age - retirement rates based on actual experience.

d. Interest rate - 9% per annum, compounded annually, net of investment expenses.

e. Health cost inflation - 9% per annum.

f. Salary scale - increase of 6.5% for the first five years of employment and 5.5% per year thereafter.

g. Cost of living allowance (domicile in Alaska) - 69% of those receiving benefits will be eligible to receive the cost of living allowance.

Continued

3. Funding Status and Progress, Continued:

h. Contribution refunds - 100% of those terminating after age thirty-five with five or more years of service will leave their contributions and thereby retain their deferred vested benefit. All others who terminate are assumed to have their contributions refunded.

i. Asset valuation - five-year average ratio between market and book values of the Plan's assets, except that fixed income investments are carried at book value. Valuation assets cannot be outside of the range of book and actuarial values.

Turnover and disability assumptions are based upon actual historical occurrence rates of the Plan. The foregoing actuarial assumptions are based on the presumption that the Plan will continue. Were the Plan to terminate, different actuarial assumptions and other factors might be applicable in determining the actuarial present value of accumulated benefits.

At June 30, 1989, the unfunded pension benefit obligation was $110.3 million, as follows ($ in millions):

Net assets available for benefits as of June 30, 1989, at market, as more fully described in Note 2	$ 2,453.0
Pension benefit obligation:	
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	1,217.3
Current employees:	
Accumulated employee contributions including allocated investment income	330.0
Employer-financed vested	886.9
Employer-financed nonvested	129.1
Total pension benefit obligation as of June 30, 1989	2,563.3
Unfunded pension benefit obligation as of June 30, 1989	$ 110.3

Continued

4. Contributions:

Employees' Contributions

Prior to January 1, 1987, employees contributed 4.25% of their compensation, except for peace officers and firemen, who contributed 5% of their compensation to the Plan. Beginning January 1, 1987, contribution rates increased to 7.5% for peace officers and firemen and 6.75% for other employees. Present employees' accumulated contributions at June 30, 1990 were $403,046,000. Employees' contributions earn interest at the rate of 4.5% per annum, compounded semiannually. Contributions are collected by employers and remitted to the Plan.

Employers' Contributions

The Plan's funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate sufficient assets to pay benefits when due. Employer contribution rates are level percentages of payroll and are determined using the projected unit credit actuarial funding method. The Plan also uses the level percentage of payroll method to amortize the unfunded liability over a twenty-five year period. Funding surpluses are amortized over five years.

Contributions made in accordance with actuarially determined contribution requirements determined through actuarial valuations consist of the following ($000) :

	1990	1989
State and other:		
Employers	$ 88,322	$ 78,932
Employee	69,344	65,104
	$157,666	$144,036
Normal cost	$156,483	$150,936
Amortization of unfunded actuarial accrued liability (surplus)	1,183	(6,900)
	$157,666	$144,036

Actuarial valuations for 1990 and 1989 were performed as of June 30, 1989 and 1988, respectively.

Continued

4. Contributions, Continued:

Employers' Contributions, Continued

Significant actuarial assumptions used to compute contribution requirements are the same as those used to compute the standardized measure of the pension benefit obligation discussed in Note 3.

5. Retirement Incentive Program:

Legislation passed in May 1986 established a retirement incentive program (RIP) designed to encourage eligible employees to voluntarily retire in order to reduce personal services costs. The program was available to eligible State employees until June 30, 1987, University of Alaska employees from October 1, 1986, to September 30, 1987, and all other employees from January 1, 1987 to December 31, 1987.

Legislation was passed in June 1989 and amended effective April 1, 1990, establishing a second retirement incentive program. The second program was available to state employees from September 30, 1989 through March 31, 1990, University of Alaska employees from June 30, 1989 through December 31, 1989, and all other employees from September 30, 1989 through March 31, 1991.

The retirement incentive program receivables represent the reimbursement due from employers participating in the programs and is due in minimum equal annual installments so that the entire balance is paid within three years after the end of the fiscal year in which employees retired. The amount of reimbursement is the actuarial equivalent of the difference between the benefits the employee receives after the addition of the retirement incentive under the program and the amount the employee would have received without the incentive, less any amount the employee was indebted as a result of retiring under the program. Employees were indebted to the Plan for the following percentage of their annual compensation for the calendar year in which the employee terminated employment to participate in the program:

	1986 RIP	1989 RIP
Police and fire members	15%	22.5%
Other members	12.75%	20.25%

Continued

5. Retirement Incentive Program, Continued:

Any outstanding indebtedness at the time an employee was appointed to retirement resulted in an actuarial adjustment of his/her benefit.

The effect of the 1986 retirement incentive program on the pension benefit obligation was fully accounted for in the June 30, 1988 actuarial valuation. The effect of the 1989 program on the pension benefit obligation will be accounted for in the June 30, 1990 and 1991 actuarial valuations as the eligible employees retire.

6. Ten-year Historical Trend Information:

Ten-year historical trend information (where available) designed to provide information about the Plan's progress made in accumulating sufficient assets to pay benefits when due is presented on the accompanying supplemental schedules of analysis of funding progress and revenues by source and expense by type.

7. Subsequent Event:

During the two month period ended August 31, 1990, the market value of the domestic equity fund declined approximately 10% and the market value of international equities declined approximately 6%.

STATE OF ALASKA
PUBLIC EMPLOYEES' RETIREMENT SYSTEM

REQUIRED SUPPLEMENTARY INFORMATION

ANALYSIS OF FUNDING PROGRESS

(Unaudited)

($000)

Year Ended June 30,	Net Assets Available	Pension Benefit Obligation	Percentage Funded	Unfunded (Assets in Excess of) Pension Benefit Obligation	Annual Covered Payroll	Unfunded (Assets in Excess of) Pension Benefit Obligation as of Percentage of Covered Payroll
1985	$1,295,536	$1,446,672	89.6%	$151,136	$830,579	18.2 %
1986	1,739,843	1,556,610	111.8%	(183,233)	890,092	(20.6)
1987	2,010,196	1,905,005	105.5	(105,191)	891,302	(11.8)
1988	2,123,695	2,246,583	94.5	122,888	908,363	13.5
1989	2,452,962	2,563,268	95.7	110,306	912,834	12.1

Analysis of the dollar amounts of net assets available for benefits, pension benefit obligation, and unfunded pension benefit obligation in isolation can be misleading. Expressing the net assets available for benefits as a percentage of the pension benefit obligation provides one indication of the Plan's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the plan is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the plan. Trends in unfunded pension benefit obligation and annual covered payroll are both affected by inflation. Expressing the unfunded pension benefit obligation as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the Plan's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the plan.

See notes to financial statements.

STATE OF ALASKA
PUBLIC EMPLOYEES' RETIREMENT SYSTEM

REQUIRED SUPPLEMENTARY INFORMATION

REVENUES BY SOURCE AND EXPENSES BY TYPE

(Unaudited)

($000)

REVENUES BY SOURCES

Year Ended June 30,	Employee Contributions	Employer Contributions	Investment Income	Unrealized Appreciation (Depreciation) in Market Value	Total
1980	$20,898	$ 56,236	$ 37,696	$ (4,990)	$109,840
1981	24,321	71,833	50,633	(23,940)	122,847
1982	28,918	88,332	51,757	(16,725)	152,282
1983	32,595	99,727	86,002	53,099	271,423
1984	36,765	114,245	101,371	(74,541)	177,840
1985	39,577	123,466	112,261	117,733	393,037
1986	42,626	127,727	182,140	159,873	512,366
1987	51,879	103,719	225,792	(27,799)	353,591
1988	66,732	108,767	154,468	(112,755)	217,212
1989	65,104	78,932	194,653	108,088	446,777

EXPENSES BY TYPE

	Retirement Benefits	Medical Benefits	Refunds to Terminated Employees	Administrative Expenses	Total
1980	$16,051	$ 1,725	$ 5,759	$ 856	$ 24,391
1981	19,710	3,094	7,802	1,292	31,898
1982	24,062	3,375	7,205	1,611	36,253
1983	28,401	4,541	7,683	2,342	42,967
1984	33,060	6,939	8,923	1,776	50,698
1985	39,487	9,350	9,553	3,813	62,203
1986	45,916	9,411	9,165	3,567	68,059
1987	57,473	10,256	10,524	4,985	83,238
1988	73,964	11,376	11,409	6,964	103,713
1989	82,389	18,065	11,188	5,868	117,510

Contributions were made in accordance with actuarially determined contribution requirements.

See notes to financial statements.

STATE OF ALASKA
PUBLIC EMPLOYEES' RETIREMENT SYSTEM

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

(Unaudited)

All significant accounting policies, benefit provisions and actuarial assumptions are the same for the required supplementary information and the financial statements except as follows:

The Plan's actuarial funding method for the years ended June 30, 1979 through June 30, 1984, was attained age normal. Effective July 1, 1984, the Plan adopted the projected unit credit actuarial funding method.

Effective July 1, 1980, the Plan adopted new actuarial assumptions. The assumed rate of interest was increased from 6% to 8% per year. The salary scale assumption was changed from 6% per year until age thirty-nine and 5% per year thereafter to 8% for the first five years of employment and 7% thereafter. Health care cost inflation was set at 8%. Turnover and disability assumptions were revised based upon actual experience in 1980 through 1981.

Effective July 1, 1986, the Plan adopted new actuarial assumptions. Actuarial funding surpluses are amortized over five years rather than twenty-five years. The assumed rate of interest was increased from 8% to 9% per year. The salary scale assumption was lowered to 6.5% per year for the first five years of employment and 5.5% per year thereafter, down from 8% and 7%, respectively. Health care cost inflation was increased to 9% rather than 8%. Turnover and disability assumptions were revised based on actual experience in 1981 through 1985.

The Plan's actuarial valuations were performed as of January 1 for 1979 and 1980.

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ACTUARIAL SECTION

HIGHLIGHTS

This report has been prepared by William M. Mercer Meidinger Hansen, Incorporated to:

(1) present the results of a valuation of the Alaska Public Employees' Retirement System as of June 30, 1989;

(2) review experience under the plan for the year ended June 30, 1989;

(3) determine the appropriate contribution rates for the State and for each political subdivision in the system;

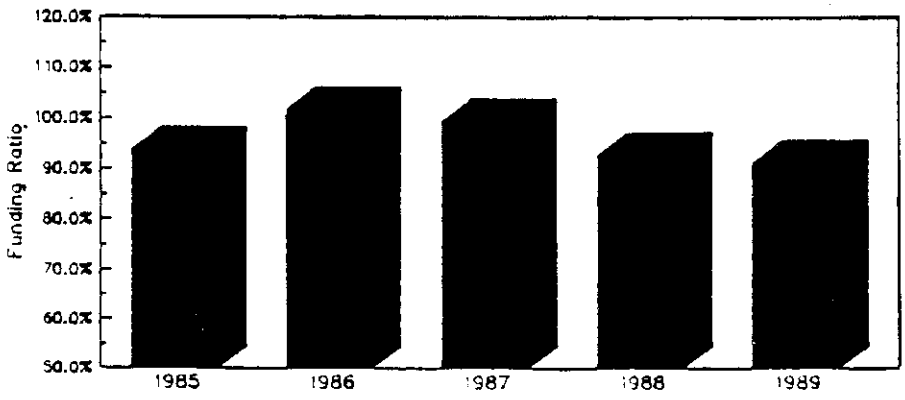
(4) provide reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

The report is divided into two sections. Section 1 contains the results of the valuation. It includes the experience of the plan during the 1988-89 plan year, the current annual costs, and reporting and disclosure information.

Section 2 describes the basis of the valuation. It summarizes the plan provisions, provides information relating to the plan participants, and describes the funding methods and actuarial assumptions used in determining liabilities and costs.

The principle results are as follows:

Funding Status as of June 30:	1988	1989
(a) Valuation Assets*	$2,088,428	$2,348,423
(b) Accrued Liability*	2,246,583	2,563,268
(c) Funding Ratio, (a) / (b)	93.0%	91.6%



* In thousands.

Employer Contribution Rates for Fiscal Year:	1991	1992
(a) Consolidated Rate	10.37%	12.00%
(b) Average Past Service Rate	1.63%	2.20%
(c) Average Total Contribution Rate	12.00%	14.20%

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions, in conjunction with employee data provided to us by the plan sponsor and financial information provided by Coopers & Lybrand, to determine a sound value for the plan liabilities. We believe that this value and the method suggested for funding it are in full compliance with the Governmental Accounting Standards Board, the Internal Revenue Code, and all applicable regulations.

Respectfully submitted,

Brian R. McGee, FSA
Principal

Peter L. Godfrey, FIA, ASA, EA
Consulting Actuary

BRM/PLG/BLD/js

April 26, 1990

ANALYSIS OF THE VALUATION

As can be seen from the Highlights section of this report, the funding ratio as of June 30, 1989 has decreased from 93.0% last year to 91.6%, a 1.4% reduction. The average employer contribution rate has increased from 12.00% of payroll to 14.20%, an increase of 2.20%. The reasons for the change in the funded status and contribution rate are explained below.

1. Retiree Medical Insurance

During the year ended June 30, 1989, the System sustained an actuarial loss of $51,421,000 due to the continuing large increases in retiree medical premiums.

For many years, we have commented on the substantial increases in retiree medical insurance premiums. The following table summarizes the monthly premium, per benefit recipient, since retiree medical became a benefit of the PERS.

Fiscal Year	Monthly Premium Per Retiree For Health Coverage	Annual Percentage Increase	Average Annual Increase Since 1978
1977	$ 34.75	--	--
1978	57.64	66%	--
1979	69.10	20%	20%
1980	64.70	- 6%	6%
1981	96.34	49%	19%
1982	96.34	0%	14%
1983	115.61	20%	15%
1984	156.07	35%	18%
1985	191.85	24%	19%
1986	168.25	-12%	14%
1987	165.00	- 2%	12%
1988	140.25	-15%	9%
1989	211.22	51%	13%
1990	252.83	20%	13%
1991	243.98	-4%	12%

As you can see from the above table, the monthly retiree medical premium increased to $252.83 during the year from $211.22, an increase of 20%. The premium for the 1991 fiscal year decreased to $243.98, making the average annual increase over the two-year period approximately 7.5%. However, we need to examine the pre- and post-65 rates to understand the full impact of the loss from retiree medical costs.

The State has seen a dramatic shift to post-65 rates. While the pre-65 premium rate increased 24%, the post-65 rate increased 65% over last year. This, combined with more retirees and higher average ages, caused an overall 30% increase in the liabilities associated with medical benefits.

The effect on the employer contribution rate of this increase in retiree medical premiums has been an increase of 2.29% of payroll.

2. Investment Performance

The System enjoyed significant actuarial gains from the investment performance of the Trust funds during the year. The rate of return based upon market values was 14.17% and the return based on valuation assets (a five-year smoothing of actuarial values) was 11.11%. As the assumed rate of return was 9%, the resulting actuarial gain was $38,186,000 which had the effect of reducing the average employer contribution rate by 0.39% of payroll.

3. Salary Increases

Once again, salary increases during the year were less than anticipated in the valuation assumptions. Salary experience resulted in an actuarial gain of $2,084,000 which generated a reduction in the average employer contribution rate of .02% of payroll.

4. Employee Data

Section 2.2 provides statistics on active and inactive participants. The number of active participants increased from 26,676 at June 30, 1988 to 28,044 at June 30, 1989. Furthermore, the average age of active participants increased from 39.67 to 40.17 and average credited service increased from 6.45 to 6.66.

The number of retirees and beneficiaries also increased from 6,702 to 6,967 and their average age increased from 62.82 to 63.28. There was a large increase in the number of vested terminated participants from 1,898 to 2,314. Their average age also increased from 42.77 to 42.97.

Legislation passed in June, 1989 established a second Retirement Incentive Program (R.I.P.) which will be available to participants after July 1, 1989. Thus, the R.I.P. had no new effect on the results of this valuation. .

The overall effect of these participant data changes was an actuarial loss of $21,109,000 resulting in an increase in the average employer contribution rate of 0.22% of payroll.

Asset Smoothing

In the past, the valuation of assets has been based on a three-year average ratio of book and actuarial values. This creates a smoothing of the investment gains and losses. Based on discussions with the Department of Revenue, the equity portion of the assets is growing, which further exposes the System to fluctuations in market returns. In response to this, we analyzed several asset smoothing techniques to determine the one most suitable to the System. Based on this analysis, we have extended the average ratio to five years. Due to a constraint that the valuation assets be within the range of book and actuarial values, this change does not affect valuation assets this year. Over time, we expect this will reduce wide swings in the contribution rates due to market volatility.

Summary

The following table summarizes the sources of change in the average employer contribution rate:

(1)	Last year's average employer contribution rate	12.00%
(2)	Increase due to retiree medical insurance	2.29%
(3)	Decrease due to investment performance	(0.39%)
(4)	Decrease due to salary increases	(0.02%)
(5)	Increase due to demographic experience	0.22%
(6)	Impact of all other factors	0.10%
(7)	Average employer contribution rate this year	14.20%

In summary, the total actuarial loss during the year was $22,676,000. Despite this overall loss, the System remains well funded at 91.6% of accrued liabilities.

SUMMARY OF THE ALASKA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

(1) Effective Date

January 1, 1961, with amendments through June 30, 1989. The Hammond vs. Hoffbeck Supreme Court decision, rendered in 1981, may have an effect on certain benefits for police/fire members hired before July 1, 1976. HB 252 may have a significant effect on certain benefits for members first hired prior to July 1, 1986.

(2) Administration of Plan

The Commissioner of Administration is responsible for administration of the System; the Public Employees' Retirement Board adopts rules and regulations to carry out provisions of the Act; and the Commissioner of Revenue invests the Fund. The Attorney General is the attorney for the System and represents it in legal proceedings.

(3) Employers Included

State of Alaska, and any political subdivision, and/or public organization who so elects to join the system.

(4) Employees Included

Membership in the Alaska PERS is compulsory for all full-time and part-time employees of the State and participating political subdivisions, including elected officials who have elected to be covered under the PERS.

University of Alaska employees who elect to participate in the University's retirement program and employees who are participating in other retirement plans which are funded by the State are not covered by the PERS. However, certain members of the Alaska Teachers' Retirement System (TRS) are eligible for PERS retirement benefits for their elected public official service with municipalities. Additionally, employees who work half-time in the PERS and the TRS simultaneously are eligible for half-time PERS and TRS credit.

PERS members who receive PERS occupational disability benefits are also covered under the PERS and earn service credit while they are on disability.

(5) Service Considered

Future:

The later of hire, January 1, 1961, or date of employer's participation in the System, to date of termination, death, or retirement.

Permanent part-time employees receive service credit on a pro-rata basis.

Past:

PERS members who meet the eligibility requirements may claim PERS credit for the following past service:

- part-time State of Alaska service rendered after December 31, 1960, and before January 1, 1976.
- service with the State, former Territory of Alaska, or U.S. Government in Alaska before January 1, 1961;
- past peace officer, correctional officer, fire fighter, and special officer service after January 1, 1961;
- military service (not more than five years may be claimed);
- temporary service after January 1, 1961;
- elected official service before January 1, 1981;
- Alaska Bureau of Indian Affairs service;
- half-time service that was rendered to PERS employers by employees who were also working in half-time positions covered by the Teachers' Retirement System; and
- leave without pay service after June 13, 1987, while the members were receiving Workers' Compensation.

Except for service before January 1, 1961, with the State, former Territory of Alaska, or U.S. Government in Alaska, contributions are required for all past service.

Past service rendered by employees of participating political subdivisions that occurred before the employers joined the PERS may be creditable if the employers agree to the pay required contributions.

(6) Average Monthly Compensation

Total compensation during three consecutive payroll years of credited service which yield the highest average monthly compensation (total compensation during period divided by number of months included; a member must have a minimum of 115 days of credited service in the last of the three payroll years).

(7) Employer Contributions

Separate contribution rate for each employer equal to the sum of:

(a) Consolidated Rate

A uniform rate for all participating employers sufficient to amortize all future service liabilities (less value of employee contributions) over the future working lifetimes of the covered group.

(b) Past Service Rate

A rate determined separately for each employer sufficient to amortize such employer's unfunded past service liability with level payments over 25 years. Any funding surplus is amortized over five years.

(8) Employee Contributions

Mandatory Employee Contributions: 7.5% for police and fire members; 6.75% for all other members.

Note: Prior to January 1, 1987, rates were 5% for police and fire and 4.25% for all other members.

Interest Credited: 4.5% compounded semiannually on June 30 and December 31.

Refund of Contributions:

- If a nonvested member terminates PERS employment and has less than $1,000 in his or her contribution account, the balance of the account (mandatory and voluntary contributions, indebtedness payments and interest earned) will be refunded to the member unless the member elects in writing not to receive a refund.

- Vested members and members who have more than $1,000 in their accounts may withdraw their contributions by requesting refunds.

Note: The contribution accounts of terminated members may be attached to satisfy claims made under Alaska Statute 09.38.065.

Reinstatement of Contributions: If mandatory contributions are refunded or withdrawn, the member must return to PERS employment in order to reinstate the refunded service. Upon reemployment, the member may request that an indebtedness be established for the amount of the refund. Contributions that are attached to satisfy claims under Alaska Statute 09.38.065 may be reinstated at any time; the member is not required to return to PERS employment. The indebtedness will accrue interest until it is paid in full or the member retires, whichever occurs first.

Refund at Death: If no survivor's pension is payable upon the member's death, the member's contribution account balance, including mandatory and voluntary contributions, indebtedness payments, and interest earned, will be paid to the designated beneficiary.

(9) Normal Retirement Benefit

Eligibility:

The first of the month following the earlier of: age 60 (age 55 for members who participated before July 1, 1986) with five or more years of fully-paid credited service; or 20 years of fully-paid credited service - Police & Fire, or 30 years of fully-paid credited service - Other.

Type:

Life only, level income, or optional joint and survivor benefit (actuarially reduced).

Amount:

Others

2% of Average Monthly Compensation for the first ten years of service, 2.25% for the next ten years, and 2.5% for all remaining years. Service before July 1, 1986 is credited at 2%.

Police & Fire

2% of Average Monthly Compensation for the first ten years of service plus 2.5% for years of service in excess of ten.

Minimum Benefit

$25.00 per month for each year of credited service.

(10) Early Retirement Benefit

Eligibility:

Age 55 (age 50 for members who participated before July 1, 1986) and five or more years of fully-paid credited service - all employees.

Type:

Life only, level income, or optional joint and survivor benefit (actuarially reduced).

Amount:

Actuarial equivalent of Normal Retirement Benefit based on service and compensation to Early Retirement Date.

(11) Deferred Vested Benefit

Eligibility:

Five or more years of credited service, withdrawal of employee contributions voids vested rights.

Type:

Life only, level income, or joint and survivor benefit (actuarially reduced).

Amount:

Monthly benefit begins on employee's Normal Retirement Date. Amount determined the same as Normal Retirement Benefit taking into account compensation and service prior to termination.

(12) Indebtedness Owing At Retirement

If on the date of appointment to retirement, a member has not paid the full amount of his indebtedness including interest to the Retirement Fund, the retirement benefit will be reduced for life by an amount equal to the actuarial equivalent of the outstanding indebtedness at the time of retirement.

(13) Re-employment of a Retired Member

If a retired member is reemployed in a position covered under the System, the retirement benefit will be suspended during the period of reemployment.

During such period of reemployment, retirement contributions are mandatory.

(14) Disability Benefit

Occupational Disability:

Eligibility:

No age or service requirements.

Type:

Monthly benefit payable until death, recovery, or normal retirement.

Amount:

40% of gross monthly compensation (66-2/3% for police/fire members who participated before July 1, 1976, offset by any workers' compensation) at date of disability. The benefit terminates upon attaining Normal Retirement eligibility, with Normal Retirement Benefits commencing at that time. The period of time on occupational disability is time credited toward Normal Retirement Benefits.

Non-Occupational Disability:

Eligibility:

Five or more years of credited service.

Type:

Monthly benefit payable until death, recovery, or normal retirement.

Amount:

Same formula used for Normal Retirement Benefits. The benefit terminates upon attaining Normal Retirement eligibility, with Normal Retirement Benefits commencing at that time. The period of time on non-occupational disability is not credited toward Normal Retirement Benefits.

(15) Death Benefit Before Retirement

Occupational:

No age or service requirements.

Benefit:

40% (66-2/3% for police/fire members who participated before July 1, 1976) of gross monthly compensation at date of death or disability, if earlier. At the member's Normal Retirement Date, the benefit converts to a Normal Retirement benefit based on pay at date of disability or death and credited service, including period from date of disability or death to Normal Retirement Date.

Non-Occupational:

With less than one year of credited service, the death benefit is the participant's contributions with interest. With more than one but less than five years of credited service, the death benefit is a lump-sum of $1,000 plus $100 for each completed year of credited service and the participant's contributions with interest. Alternatively, a retirement benefit to the spouse is available at death of the member after five years of credited service, based on a 50% Joint and Survivor equivalent of the accrued Normal Retirement Benefit.

(16) Death Benefits After Retirement

The employee's beneficiary receives a lump sum equal to the excess of his contribution account immediately prior to retirement over the sum of the pension payments previously received by the employee. However, if the employee elected one of the joint and survivor options (50%, 66-2/3% or 75%) at retirement, an eligible spouse would receive a continuing monthly benefit for the rest of his or her life.

(17) Post-Retirement Pension Adjustment

Post-Retirement pension Adjustment will be made each year based upon the increase in CPI for the prior year. The increase in the total current benefit, excluding the Cost-of-Living Allowance (COLA), will be:

(1) 75% of the CPI increase (not to exceed 9%) for recipients who are at least age 65 or on PERS disability; or

(2) 50% of the CPI increase (not to exceed 6%) for recipients who are at least age 60 but under 65, and for recipients who have been receiving benefits for at least five years but are under age 60.

(There are ad hoc PRPA's up to 4% for those hired before July 1, 1986).

(18) Cost-of-Living Allowance

Starting at age 65, a retired employee who remains in Alaska is eligible for an additional allowance, equal to 10% of the base retirement benefit, or $50 per month, whichever is greater (COLA for those hired before July 1, 1986, regardless of age).

(19) Optional Employee Savings Account

An employee can voluntarily contribute up to 5% of his compensation. This amount is recorded in a separate account and is payable:

(a) In the event of termination before retirement for any reason other than death, as a lump sum to the employee,

(b) In the event of termination on account of death, as a lump sum to the employee's beneficiary,

(c) On retirement, as a lump sum, life annuity on cash refund basis or installments over limited period.

PARTICIPANT CENSUS INFORMATION - TOTAL PERS AS OF JUNE 30

Active Members	1985	1986	1987	1988	1989
(1) Number	27,183	27,643	26,762	26,676	28,044
(2) Average Age	38.65	39.21	39.53	39.67	40.17
(3) Average Credited Service	5.51	5.96	6.32	6.45	6.66
(4) Average Annual Salary	$30,555	$32,200	$33,305	$34,052	$32,550
Retirees and Beneficiaries					
(1) Number	4,317	4,657	5,651	6,702	6,967
(2) Average Age	63.82	64.05	60.39	62.82	63.28
(3) Average Monthly Benefit					
Base	$ 656	$ 674	$ 753	$ 791	$ 795
C.O.L.A.	54	55	62	64	64
P.R.P.A.	126	110	110	90	98
TOTAL	836	839	925	945	957
Vested Terminations					
(1) Number	1,525	1,766	1,921	1,898	2,314
(2) Average Age	45.85	45.50	45.33	42.77	42.97
(3) Average Monthly Benefit	$ 397	$ 419	$ 425	$ 504	$ 519
Non-Vested Terminations With Account Balances					
(1) Number	7,945	8,155	3,965	3,101	3,365
(2) Average Account Balance	$ 471	$ 544	$ 1,114	$ 2,100	$ 1,891

Note that any differences between the numbers shown above and those shown in the PERS financial statements reflect data changes following publication of the financial statements.

ADDITIONAL INFORMATION
ACTIVE MEMBERS BY TYPE OF STATUS AS OF JUNE 30

	1985	1986	1987	1988	1989
Active Police & Fire					
(1) Number	2,407	2,371	2,319	2,327	2,414
(2) Average Age	36.78	37.54	37.86	38.35	39.31
(3) Average Credited Service	7.19	7.88	8.05	8.16	8.60
(4) Average Annual Salary	$38,380	$42,825	$43,484	$43,947	$43,082
(5) Number Vested	1,260	1,359	1,433	1,505	1,598
(6) Percent Who Are Vested	52.3%	57.3%	61.8%	64.7%	66.2%
Active "Other" Members					
(1) Number	24,776	25,272	24,443	24,349	25,630
(2) Average Age	38.83	39.37	39.69	39.80	40.25
(3) Average Credited Service	5.35	5.78	6.16	6.29	6.48
(4) Average Annual Salary	$29,795	$31,203	$32,339	$33,106	$31,558
(5) Number Vested	10,822	10,964	11,664	12,191	13,345
(6) Percent Who Are Vested	43.7%	43.4%	47.7%	50.1%	52.1%

STATISTICS ON ALL RETIREES AS OF JUNE 30, 1989

	Police & Fire	"Other"
Service Retirement		
Number, June 30, 1988	328	5,844
Net Change During FY89	111	62
Number, June 30, 1989	439	5,906
Average Age At Retirement	50.97	58.27
Average Age Now	56.61	64.55
Average Monthly Benefit	$2,069.75	$ 891.59
Surviving Spouse's Benefits		
Number, June 30, 1988	11	342
Net Change During FY89	7	53
Number, June 30, 1989	18	395
Average Age At Retirement	46.00	52.60
Average Age Now	53.10	60.71
Average Monthly Benefit	$890.79	$532.37
Survivor's Benefits		
Number, June 30, 1988	14	21
Net Change During FY89	0	2
Number, June 30, 1989	14	23
Average Age At Retirement	27.93	44.65
Average Age Now	39.62	56.68
Average Monthly Benefit	$1,677.87	$1,045.75
Disabilities		
Number, June 30, 1988	34	108
Net Change During FY 89	7	23
Number, June 30, 1989	41	131
Average Age At Retirement	38.83	43.68
Average Age Now	43.71	47.79
Average Monthly Benefit	$1,775.36	$1,090.94
Total Number of Retirees	**512**	**6,455**

ACTUARIAL BASIS

Valuation of Liabilities

A. Actuarial Method - Projected Unit Credit. Liabilities and contributions shown in the report are computed using the Projected Unit Credit method of funding. The unfunded accrued liability is amortized over 25 years. Any funded surpluses are amortized over five years.

The objective under this method is to fund each participant's benefits under the plan as they accrue. Thus, each participant's total pension projected to retirement with salary scale is broken down into units, each associated with a year of past or future service. The principle underlying the method is that each unit is funded in the year for which it is credited. Typically, when the method is introduced there will be an initial liability for benefits credited for service prior to that date, and to the extent that this liability is not covered by Assets of the Plan there is an Unfunded Liability to be funded over a chosen period in accordance with an amortization schedule.

An **Accrued Liability** is calculated at the valuation date as the present value of benefits credited with respect to service to that date.

The **Unfunded Liability** at the valuation date is the excess of the Accrued liability over the Assets of the Plan. The level annual payment to be made over a stipulated number of years to amortize the Unfunded Liability is the **Past Service Cost**.

The **Normal Cost** is the present value of those benefits which are expected to be credited with respect to service during the year beginning on the valuation date.

Under this method, differences between the actual experience and that assumed in the determination of costs and liabilities will emerge as adjustments in the Unfunded Liability, subject to amortization.

B. Actuarial Assumptions

1.	Interest	9% per year, compounded annually, net of expenses.
2.	Salary Scale	6.5% per year for the first five years of employment and 5.5% per year thereafter.
3.	Health Cost Inflation	9% per year.
4.	Mortality	1984 Unisex Pension Mortality Table set back 1-1/2 years.
5.	Turnover	Based upon the1981-85 actual total turnover experience. (See Table 1.)

6.	Disability	Incidence rates in accordance with Table 2. Post-disability mortality in accordance with rates published by the Pension Benefit Guaranty Corporation to reflect mortality of those receiving disability benefits under Social Security. Disabilities are assumed to be occupational 85% of the time for Police/Fire, 35% for "Others".
7.	Retirement Age	Retirement rates based on actual experience in accordance with Table 3.
8.	Spouse's Age	Wives are assumed to be four years younger than husbands.
9.	Dependent Children	Benefits to dependent children have been valued assuming members who are not single have one dependent child.
10.	Contribution Refunds	100% of those terminating after age 35 with five or more years of service will leave their contributions in the fund and thereby retain their deferred vested benefit. All others who terminate are assumed to have their contributions refunded.
11.	C.O.L.A.	69% of those receiving retirement benefits at an age which is eligible for C.O.L.A., will receive C.O.L.A.
12.	Expenses	Expenses are covered in the interest assumption.

Valuation of Assets

Based upon the five-year average ratio between actuarial and book values of the System's assets. The actuarial value of assets equals the market value, except that fixed income investments are carried at book value. Assets are accounted for on an accrued basis and are taken directly from audited financial statements provided by Coopers & Lybrand. Valuation assets cannot be outside the range of book and actuarial values.

Valuation of Medical Benefits

Medical benefits for retirees are provided by the payment of premiums from the fund. A pre-65 cost and lower post-65 cost (due to Medicare) were assumed such that the total rate for all retirees equals the present premium rate. These medical premiums are then increased with the health inflation assumption. The actuarial cost method used for funding retirement benefits is also used to fund health benefits.

For FY90, the pre-65 monthly premium is $330.51 and the post-65 premium is $125.91, based on a total blended premium of $252.83. For FY91, the pre-65 monthly premium is $318.94 and the post-65 premium is $121.50, based on a total blended premium of $243.98. These rates and the pre- 65/post-65 split were provided by Deloitte & Touche.

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INVESTMENT SECTION

WALTER J. HICKEL, GOVERNOR

DEPARTMENT OF REVENUE

OFFICE OF THE COMMISSIONER

P.O. BOX S
JUNEAU, ALASKA 99811-0400
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December 13, 1990

To the Participating Employees and Employers of
The Alaska Public Employees' Retirement Systems

Dear Members:

I am pleased to provide to you the Public Employees' Retirement Trust Fund 1990 Investment Report.

The report describes the nature, management, and investment policy of the fund and presents the investment results for the fiscal year ending June 30, 1990 and the preceding four fiscal years. The report is included in the Annual Report of the Alaska Public Employees' Retirement System and Teachers' Retirement System published by the Department of Administration pursuant to Alaska Statutes 39.35.020(5) and 14.25.030(4).

Sincerely,

William E. Floerchinger
Acting Commissioner

WEF/MBB/mem

04-D21.H

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PUBLIC EMPLOYEES' RETIREMENT TRUST FUND
1990 Investment Report

Creation, Purpose, and Nature of the Fund

The Public Employees' Retirement Trust Fund is established by Alaska Statutes 39.35.020(6). The fund holds the assets of the Public Employees' Retirement System. These assets are comprised of investments of various kinds, including stocks, bonds, and real estate. The fund was created as a means of paying retirement and other benefits to employees participating in the retirement plan administered under the Public Employees' Retirement System. The retirement plan is a defined-benefit plan in which benefit levels are determined by length of employment and highest average salary of each employee. The plan is a joint-contributory plan in which both employee and employer make continuing contributions, calculated as a percentage of current salary. Employee contribution percentages are fixed by statute. Employer contributions are determined by annual evaluations of the fund by a consulting actuary. The plan is considered to be perpetual because it applies to future as well as current employees and because the employers (state and municipal governments or political subdivisions) are perpetual in nature.

The assets of the fund came into being and have grown because employers and employees have paid more into the fund in the form of contributions than has been paid out in benefits. Investment returns have further increased the fund's assets. Contributions currently exceed benefits by design, in order to be able to make the benefit payments that can reasonably be expected in the future. These projections of future benefit payments are one of the main factors estimated by the actuary in determining employer contribution rates. The other main factors are the amount of assets in the fund and the expected future returns on investments. Future benefits will be much larger than benefits paid today because of past and future growth in the number of employees, in their salaries, and in health care costs for retirees.

Participating employers are bound by the Alaska Constitution to pay the plan's benefits. Although benefits could be paid on a pay-as-you-go basis, the existence of a fund serves two purposes. For the employer, it smooths out over time the burden of paying these benefits, just like mortgage payments smooth out the burden of buying a house. For the employee, it provides insurance that employers will meet their obligations.

Trust Stature of the Fund

It is this insurance function which has caused the fund to be designated by Alaska law as a trust fund. Under common law, a trust fund is a fund which can only be used in the interests of persons designated by the creator of the fund as beneficiaries. Of course, in the case of the Public Employees' Retirement Trust Fund, the beneficiaries are the employees, and have been so designated by the State in the laws creating the fund.

As a trust fund, it would be legally suspect for the State, or a municipal employer for that matter, to withdraw money from the fund to use for purposes other than paying benefits. Even underfunding or deferring of an employer's contributions would be questionable, based on Article II, Section 7 of the Alaska Constitution. This constitutional provision places a contractual obligation on employers to pay these benefits.

Perhaps most telling in regards to this obligation is the Alaska Supreme Court's decision in Hammond vs. Hoffbeck. This decision limits public employers' ability to diminish even benefits that could be, but have not yet been earned, by an existing employee. The Hammond vs. Hoffbeck decision is also based on Article II, Section 7 of the Alaska Constitution. This section reads:

> Membership in employee retirement systems of the State or its political subdivisions shall constitute a contractual relationship. Accrued benefits of these systems shall not be diminished or impaired.

Another reason for establishing and maintaining the fund as a trust is provided by the IRS. The federal tax code allows employee contributions to such funds and the earnings of such funds to be exempt from federal income taxes only if the fund is a trust "for the exclusive benefit" of employees. This actually amounts to a deferral of taxes since retirees or their beneficiaries are taxed on retirement benefit payments they will ultimately receive.

Thus, the Public Employees' Retirement Trust Fund is a fund that must be managed solely with the employee in mind. A strong array of provisions in the Alaska Constitution, common law, Alaska Statutes, and federal tax code places the force of law behind this obligation.

Management of the Fund

Alaska Statutes 39.35.080 designates the Commissioner of Revenue as the treasurer of the system and the fiduciary of the fund. As the sole fiduciary, the Commissioner is solely responsible and accountable for the investment of the fund.

The fiduciary for a trust fund, also known as a trustee, is subject to two principal duties under common law -- a duty of prudence and a duty of loyalty. The duty of prudence requires the trustee to exercise a degree of care in managing investments that would be used by a person of ordinary prudence in managing their own investments. The duty of loyalty requires the trustee to act only in the best interests of the beneficiaries. Alaska law has reformulated these duties to higher and more demanding standards and made them specifically applicable to the Public Employees' Retirement Trust Fund. These statutory standards require the fiduciary to exercise the standard of care required of a professional institutional investor managing large investments under a trust relationship and to act only in the best financial interests of the beneficiaries.

The importance of observing these fiduciary duties is underscored by Alaska Statutes holding the Commissioner, or a designee, personally liable for breaches. The Commissioner may delegate investment responsibilities to State officers or employees or to independent firms, banks, or trust companies. Even so, the Commissioner remains potentially liable through failure to act in response to knowledge of breaches, or through knowing participation in breaches, by designees who have been delegated investment powers.

As permitted by the statutes, the Commissioner has delegated investment responsibilities to both departmental staff and independent firms or financial institutions. State investment officers of the Treasury Division of the Department of Revenue manage fixed income investments. These include corporate and government bonds, money market investments, and real estate mortgages, the latter through financial institutions and mortgage lending companies on contract as loan servicers. Domestic and international corporate stock investments are managed by investment adviser firms under contracts. The contracts grant them full discretion for investment decisions except for a domestic common stock index fund. Real estate equity investments currently are managed by real estate adviser firms through pools in which the Public Employees' Retirement Trust Fund has invested along with other tax-exempt funds.

Treasury investment officers are subject to certain professional accreditation requirements and also must conform to "The Code of Ethics and Standards of Professional Conduct" of the Financial Analysts Federation as well as the Alaska Executive Branch Ethics Act.

Investment Policy

As fiduciary, the Commissioner is charged by statute with determining the investment objectives and policy for the fund. In so doing, the Commissioner must consider both the assets and liabilities of the system both now and in the future.

One of the means for considering the current and future condition of the system is provided by long-range projections, prepared by the system's actuary and contained in Table I. Table I incorporates the same assumptions used by the actuary in determining contribution rates. Under these assumptions, total contributions exceed benefit payments through fiscal year 1999. Thus, the fund is expected to experience no net outflow and should continue to grow in size for a relatively long period of time. Sensitivity analyses of the projections indicate there may be some chance that a minor portion of investment earnings (no more than 25 percent) would be needed after fiscal year 1995 to cover benefit payments. Even in such cases, the size of the fund and its earnings would continue to grow.

Further insight into the current and probable future condition of the system can be gained from examining Table II. The system has a less than average percentage of retired members and years of credited service per member. This supports the expectation that net cash inflows should continue for some time.

The table also indicates that the system is extremely well funded, its assets being only 8.4% short of accrued benefits, compared to 15.0% short for U.S. public pension funds on average. The higher than average spread of the assumed rate of return over salary increases compared to public pension funds is based on the substantial portion (46 percent) of the fund invested in equities, with their higher than average expected returns, balanced by a relatively high book yield of 9.67 percent on the remaining fixed income portion of the fund. The assumed spread also reflects the dimmer prospects for salary increases as State petroleum revenues decline and budgets tighten. Thus, the fund is in very good condition and can expect to do well in the next few years with only a small and somewhat uncertain need for cash flow from investments to pay benefits.

For purposes of establishing investment policy, it is the perpetual nature of the fund and its current and probable future condition of net cash inflows that are the most important characteristics. The long time span before any significant net cash flow is required from investments gives the fund the luxury to make investments which should enjoy higher returns over the long-run, although they may be slow to materialize, or be erratic in the short-run, and it allows greater use of investments which may experience substantial fluctuations in value. The character of the fund expands the universe of investment possibilities and increases the potential for achieving higher returns on the investments.

The primary objective of the investment policy is to maximize the returns on the fund's total investments over a long time span without undertaking an unreasonable degree of risk of reducing the principal of the funds or of realizing the lower returns which would necessitate raising the contribution levels. Higher investment returns over the years mean, at least initially, a larger fund. A larger fund size relative to a retirement system's liability for future benefit payments is the beneficiaries' best security that the pensions will be paid when they are due.

Table I
PUBLIC EMPLOYEES' RETIREMENT SYSTEM
FINANCIAL PROJECTIONS
($ millions)

Investment Return: 9.00% (nominal) **Salary Increases: 6.04% (6.5/5.5 assumed)**

As of June 30	Valuation Amounts on July 1: Total Assets	Accrued Liability	Surplus* (Deficit)	Flow Amounts during following 12 months: Total Salaries	Employer Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings	Ending Asset Valuation
1989	2,348,423	2,563,268	(214,845)	949,347	107,691	64,745	172,436	125,210	47,226	222,994	2,618,644
1990	2,618,644	2,829,201	(210,558)	1,006,688	124,059	68,656	192,715	138,029	54,686	248,744	2,922,074
1991	2,922,074	3,128,213	(206,139)	1,067,492	147,352	72,803	220,155	152,405	67,750	277,870	3,267,694
1992	3,267,694	3,469,473	(201,779)	1,131,968	154,682	77,200	231,882	168,749	63,133	310,168	3,640,994
1993	3,640,994	3,837,592	(196,598)	1,200,339	162,402	81,863	244,265	186,394	57,871	345,040	4,043,905
1994	4,043,905	4,234,429	(190,524)	1,272,840	170,535	86,808	257,343	205,434	51,909	382,665	4,478,479
1995	4,478,479	4,661,957	(183,477)	1,349,719	179,103	92,051	271,153	225,966	45,188	423,234	4,946,901
1996	4,946,901	5,122,277	(175,376)	1,431,242	188,129	97,611	285,739	248,095	37,644	466,950	5,451,495
1997	5,451,495	5,617,625	(166,129)	1,517,689	197,639	103,506	301,145	271,935	29,210	514,028	5,994,733
1998	5,994,733	6,150,375	(155,642)	1,609,358	207,659	109,758	317,418	297,604	19,813	564,696	6,579,242
1999	6,579,242	6,723,052	(143,810)	1,706,563	218,219	116,388	334,607	325,231	9,375	619,200	7,207,818
2000	7,207,818	7,338,341	(130,524)	1,809,639	229,347	123,417	352,765	354,951	(2,187)	677,797	7,883,428
2001	7,883,428	7,999,094	(115,666)	1,918,942	241,076	130,872	371,948	386,910	(14,963)	740,763	8,609,228
2002	8,609.228	8,708,339	(99,111)	2,034,846	253,438	138,776	392,215	421,263	(29,048)	808,391	9,388,571
2003	9,388,571	9,469,294	(80,723)	2,157,750	266,469	147,159	413,628	458,173	(44,545)	880,991	10,225,016
2004	10,225,016	10,285,376	(60,360)	2,288,079	280,207	156,047	436,254	497,818	(61,564)	958,892	11,122,344

* Surpluses reduce employer contributions over 5 years
* Deficits increase employer contributions over 25 years

As of June 30	Funding Ratio
1989	91.6
1990	92.6
1991	93.4
1992	94.2
1993	94.9
1994	95.5
1995	96.1
1996	96.6
1997	97.0
1998	97.5
1999	97.9
2000	98.2
2001	98.6
2002	98.9
2003	99.1
2004	99.4

Flow Amounts: As % of Salaries: Employer Contribs	Employee Contribs	Total Contribs	Benefit Payments	As % of Assets: Net Contribs	Investment Earnings
11.34	6.82	18.16	13.19	1.91	9.00
12.32	6.82	19.14	13.71	1.98	9.00
13.80	6.82	20.62	14.28	2.19	9.00
13.66	6.82	20.48	14.91	1.83	9.00
13.53	6.82	20.35	15.53	1.51	9.00
13.40	6.82	20.22	16.14	1.22	9.00
13.27	6.82	20.09	16.74	0.96	9.00
13.14	6.82	19.96	17.33	0.73	9.00
13.02	6.82	19.84	17.92	0.51	9.00
12.90	6.82	19.72	18.49	0.32	9.00
12.79	6.82	19.61	19.06	0.14	9.00
12.67	6.82	19.49	19.61	-0.03	9.00
12.56	6.82	19.38	20.16	-0.18	9.00
12.45	6.82	19.27	20.70	-0.32	9.00
12.35	6.82	19.17	21.23	-0.46	9.00
12.25	6.82	19.07	21.76	-0.58	9.00

Table II

PUBLIC EMPLOYEES' RETIREMENT SYSTEM STATISTICS

	Public Employees' Retirement System [1]	Mean of U.S. Public Pension Funds [2]	Mean of U.S. Corporate Pension Funds [2]
Average Age of Active Members	40.17	40.7	40.3
Average Years of Credited Service	6.66	11.0	11.5
% of Total Members Retired	19.9%	27.6%	21.0%
% of Active Members Vested	42.7%	50.4%	59.1%
Period in Years to Amortize Unfunded Accrued Benefits	25	29.4	23.6
% of Pension Obligation Funded	91.6%	85.0%	NA
Spread of Actuarial Rate of Return Assumption Over Salary Increase Assumption	2.5% first 5 years; 3.5% thereafter	2.1%	3.4%

[1] *"Actuarial Valuation as of June 30, 1989," William M. Mercer-Meidinger, Inc.*
[2] *"Investment Management 1990," Greenwich Associates, Greenwich, Connecticut*

Returns which average higher than the actuarially assumed returns (currently 9 percent) eventually lead to either increases in pension benefits or decreases in the amounts of annual employer contributions. This tends to bring the size of the fund back closer to the present value of accrued benefits.

In line with the above objective, the general investment policy is to emphasize equity investments. Equities are expected to provide, and historically have provided, the highest returns over long periods of time, even though equity returns are subject to substantial variation over shorter time periods. Currently, equity investments include domestic and foreign common stocks and real estate equity funds. The rest of the fund is invested in fixed amount investments, primarily U.S. Treasury securities but also including corporate bonds and real estate mortgages. For similar reasons as the emphasis on equities, fixed amount investments emphasize intermediate to longer-term instruments whose market prices are subject to greater fluctuation but yield more over the long-run than shorter-term investments. Table III indicates the long-term historical experience on investment returns that underlies this policy.

The most important aspect of implementing the fund's investment policy is the decision as to how much of the fund's assets are to be placed in various classes of investments (the asset allocation decision). By far the majority of the investment returns are attributable to asset allocation decisions as opposed to the choice of independent management firms or choice of individual securities or investments within an asset class.

Table III

U.S. CAPITAL MARKETS
AVERAGE ANNUAL RETURN
1926-1989

Domestic Common Stocks	10.3%
Long-Term Corporate Bonds	5.2
Long-Term U.S. Treasury Bonds	4.6
Intermediate-Term U.S. Treasury Bonds	4.9
U.S. Treasury Bills	3.6
Inflation	3.1%

Source: Ibbotson Associates

Table IV presents ranges for various asset classes as a percentage of the total fund that have been established to guide the asset allocation decision. The table also shows the asset allocation at the end of fiscal year 1990. As the table indicates, further allocations to all classes of equities can be expected in order to bring the allocations to such classes within the policy ranges. At the same time, fixed income investments necessarily will decline. Mortgage investments will eventually be eliminated as existing mortgages are paid off.

Table IV

PUBLIC EMPLOYEES' RETIREMENT TRUST FUND
ASSET ALLOCATION
(as a percent of market value)

Asset Class	Policy Minimum	Policy Maximum	Actual June 30, 1990
Equities	55%	65%	46%
Common Stocks	45	55	40
Domestic	35	45	32
International	10	10	8
Real Estate	10	10	6
Fixed Income	35	45	54
Bonds	35	45	44
Mortgages	0	0	4
Cash	0%	10%	6%

Table V presents the asset allocations as of the end of the last five fiscal years. The table shows the increasing emphasis on stocks and intermediate to long-term corporate and Treasury bonds, an outgrowth of the investment policy. By the same token, short-term money market debt has been de-emphasized.

Table V

PUBLIC EMPLOYEES' RETIREMENT FUND
HISTORICAL ASSET ALLOCATION
(as a percent of market value)

	6-30-86	6-30-87	6-30-88	6-30-89	6-30-90
Real Estate Equities	5.6%	6.0%	6.8%	6.1%	5.8%
Domestic Common Stocks	25.4	30.4	26.6	27.3	32.3
International Common Stocks	6.3	10.1	6.6	6.1	7.5
Total Equities	37.3	46.5	40.0	39.6	45.6
International Debt	-	-	-	-	-
Corporate Debt	10.6	9.0	10.9	11.1	12.7
Treasury Debt	26.7	28.1	35.6	34.8	31.8
Money Markets	10.0	9.2	7.5	9.6	6.0
Total Marketable Debt	47.3	46.3	54.0	55.6	50.5
Mortgages	14.9	7.3	6.0	4.9	3.8
TOTAL FUND	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

The Economy in Fiscal Year 1990

At the end of fiscal year 1990, the U.S. economy continued to show signs of slow growth. Slowing gains in services employment, increased consumer savings, and decreased real consumer spending were siphoning growth from the economy.

With inflation fears subsiding, equities were pushed into record high territory. For the fiscal year, the Standard & Poor's 500 Index generated a return of 16.5%. On the international front, the decline in the Japanese stock market reduced the Europe, Australia, Far East ("EAFE") Index returns to 3.3% for the fiscal year.

The sluggishness of the economy also helped the bond market to rally at year end, after posting five months of losses. For the year, the Salomon Brothers Broad Investment-Grade Bond Index generated a return of 7.7%.

Investment Returns

Table VI presents the annual rates of return for the fund by asset class for each of the last five fiscal years and for the entire period. An auditor's opinion accompanies the table. The rates of return are total returns. Total returns include unrealized changes in market value as well as income earned and realized gains or losses. The performance of the fund's investments can be gauged by comparison to market indices and from percentile rankings in comparison with other large state pension funds.

Total Fund Assets

Table IX indicates that the fund has had an average annual return of 12.5% on its total assets for the last five fiscal years. This ranked the fund in the top 40% of State retirement funds over $500 million in size which are in SEI Corporation's universe of funds. SEI Corporation provides investment performance measurements for these funds.

For fiscal year 1990, the fund had a 10.3% return, ranking it in the top one-third of SEI's funds.

Table IX also shows that the returns on all the fund's assets excluding real estate (total marketable securities in Table IX) rank almost in the top quartile for the last five fiscal years.

The fund's extraordinary concentration in real estate and its performance has been a serious drag on total fund performance. In fiscal year 1986, the fund had 18.9% of its assets in real estate compared to 1.8% on average for other funds. By fiscal year 1990, the fund's real estate allocation had decreased to 9.5%, still almost twice the average of 5.4% for other large State retirement funds. In each and every year for the last five years, the fund has had the highest allocation to real estate of any fund in the SEI universe.

During the last five years, real estate equity returns for all SEI funds, at 7.4%, have seriously underperformed marketable securities returns of 12.6%. Also, the fund's relative performance on mortgage investments, at the 71st percentile, has been poor. This is probably a result of the severity of the collapse of the housing market in Alaska during this period, given the almost total concentration of fund mortgages in Alaska.

Domestic Common Stock

Table VII presents rates of return for individual investment adviser firms managing fund assets invested in common stocks. As seen in Table VII, the ranking of domestic common stock investments, at the 40th percentile averaged above the median performance (50th percentile) of other large funds over the five year period. However, rates of return for common stocks, as shown in Table VII, have lagged behind the market averages shown in Table VIII. In part this lag is attributable to the stage of the stock market cycle embraced by the five year period under consideration. The common stock returns for the fund include the money market rates on the cash normally held by most active stock managers. The cash allows them to take advantage of buying opportunities. In contrast, the market indices reflect a fully invested position at all times. This makes it more difficult for active managers to beat the market during an up leg of a cycle, but easier on the down side. Holding cash is also a handicap in general over long time spans since the market's general trend is to increase in value over time as economic growth takes place.

In fiscal year 1990, domestic common stocks in total did match the Standard & Poor's 500 Index and improved their relative ranking to the 40th percentile. This may be due in part to several changes recently initiated in the management of domestic common stocks. At the beginning of fiscal year 1989, a domestic common stock index fund managed by State Street Bank & Trust was initiated. Halfway through the year, four new active managers were added. Another change was the negotiation of performance-based fees for all active managers except Lehman Ark Management and their initiation in January, 1989.

KPMG Peat Marwick

Certified Public Accountants

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Independent Auditors' Report

State of Alaska
Department of Revenue
Division of Treasury:

We have audited the accompanying schedule of total rates of return for the Public Employees' Retirement Trust Fund (Fund), covering marketable debt securities, domestic common stocks, international common stocks, real estate equities and mortgage loans for the period from July 1, 1985 to June 30, 1990 and for each of the years in the five year period ended June 30, 1990. This schedule is the responsibility of the Fund's management. Our responsibility is to express an opinion on this schedule based on our audit.

We conducted our audit in accordance with standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule is free of material misstatement. An audit includes examining, on a test basis, the underlying data from which the total rates of return are calculated, as well as the calculations themselves. An audit also includes assessing the basic assumptions used by management in making the calculations and the overall presentation of the total rates of return. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the schedule referred to above presents fairly, in all material respects, the total rates of return for the Public Employees' Retirement Trust Fund for the period from July 1, 1985 to June 30, 1990 and for each of the years in the five year period ended June 30, 1990, computed in accordance with the measurement and disclosure criteria set forth in the notes to the schedule.

KPMG Peat Marwick

October 5, 1990

Table VI

STATE OF ALASKA, DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Public Employees' Retirement Trust Fund

Schedule of Total Rates of Return

Period July 1, 1985 to June 30, 1990

	Dollar-weighted						Time-weighted
	Year ended June 30					Annual average for five years ended June 30,	annual average for five years ended June 30,
	1986	1987	1988	1989	1990	1990	1990
Marketable securities:							
Equity:							
Domestic common stocks	39.2%	18.4%	(7.5)%	17.6%	17.4%	14.4%	16.0%
International common stocks	91.3	38.8	(5.0)	9.2	5.1	23.8	26.0
Total equity	47.4	22.6	(7.0)	16.0	16.9	16.0	17.9
Debt	23.1	4.7	7.8	14.4	6.8	11.5	11.2
Total marketable securities	30.9	11.9	1.2	15.0	10.6	12.8	13.5
Real estate:							
Equities	8.0	6.2	6.4	8.1	4.6	6.7	6.7
Mortgage loans	12.7	9.9	13.7	11.0	6.1	11.3	10.6
	11.4	8.5	10.0	9.4	5.2	9.4	8.9
Total Fund investments	25.6%	11.4%	2.3%	14.3%	10.1%	12.6%	12.5%
Equity investments (note 3)	38.1	20.2	(5.2)	14.6	15.1	13.7	15.7
Fixed income investments (note 3)	20.1	5.6	8.5	14.2	6.8	11.4	10.9
Total Fund investments	25.6%	11.4%	2.3%	14.3%	10.1%	12.6%	12.5%

See accompanying notes to schedule of total rates of return.

STATE OF ALASKA,
DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Public Employees' Retirement Trust Fund

Notes to Schedule of Total Rates of Return

Period July 1, 1985 to June 30, 1990

(1) General

The Public Employees' Retirement Trust Fund (Fund) represents the investment portfolio of the State of Alaska Public Employees' Retirement System (PERS). Investments of the Fund include marketable debt securities, domestic common stocks, international common stocks, real estate equities and mortgage loans.

The market values utilized in the total rates of return calculation are determined as follows:

Marketable Securities

Determined at the end of each month by the custodial agents. The agents' determination of market values involves, among other things, using pricing services or priced quoted by independent brokers.

Mortgage Loans

Determined by adjusting purchased yields to the current secondary mortgage market conditions established by the MGIC Investment Corporation. Market value has been reduced by a mortgage loan loss provision for uncollectible problem loans.

Real Estate Equities

Valued by the various companies managing the funds.

(2) Calculation of Total Rates of Return

The dollar-weighted (or internal) rate of return represents the annually compounded rate of return that discounts the year-end market value of an investment portfolio and that year's cash flows in and out of the portfolio back to the portfolio's market value at the beginning of the year. The annual average for the five-year period ended June 30, 1990 is calculated similarly except that annual fluctuations in market value are not considered - only market value at the beginning and the end of the five-year period are used, with the result being annualized.

The annual average five-year time-weighted rate of return represents an average of each of the five dollar-weighted rates of return weighted equally.

(Continued)

The dollar weighted rate of return measures the actual internal growth rate of the portfolio. The dollar-weighted rate of return is influenced by the timing of contributions to and disbursements from a portfolio which are beyond the control of the portfolio managers. Time-weighted rates of return are frequently used to measure the performance of portfolio managers because they can help eliminate the influence of cash flows that are beyond the control of portfolio managers.

The historical total rates of return may not be indicative of future total rates of return. Attention should be drawn to the fact that other performance calculation methods may produce different results and that comparisons of investment results should consider qualitative circumstances and should be made only to portfolios with generally similar investment objectives.

(3) Equity Investments and Fixed Income Investments

Included as equity investments are domestic and international equity common stocks and real estate equities. Included as fixed income investments are marketable debt securities and mortgage loans.

Table VII

PUBLIC EMPLOYEES' RETIREMENT TRUST FUND
COMMON STOCK MANAGERS
Total Rates of Return
(and Rankings)*

Manager	Fiscal Year 1986	Fiscal Year 1987	Fiscal Year 1988	Fiscal Year 1989	Fiscal Year 1990	Fiscal Years 1986-90
Domestic Common Stocks						
Alger Management	46.0% (10)	9.3% (94)	-11.2% (93)	21.7% (20)	28.7% (03)	17.3% (26)
Invesco Capital Management	29.6 (75)	19.4 (49)	-0.8 (17)	14.9 (80)	12.4 (57)	14.7 (77)
Lehman Ark Management	34.5 (46)	26.1 (13)	-6.2 (60)	19.9 (34)	15.5 (42)	17.1 (30)
IDS	-	-	-	-	30.7 (03)	-
Miller, Anderson & Sherrerd	-	-	-	-	16.4 (38)	-
Loomis, Sayles	-	-	-	-	4.3 (88)	-
United Capital Management	-	-	-	-	2.2 (92)	-
State Street Bank & Trust	-	-	-	11.6 (94)	19.8 (26)	-
Total	37.5 (54)	17.6 (97)	-5.6 (25)	17.4 (74)	17.1 (40)	16.0 (40)
International Common Stocks						
Citibank N.A.	93.3 (43)	40.8 (53)	-6.9 (80)	7.1 (91)	18.5 (50)	26.3 (86)
Morgan Guaranty Trust Co.	91.6 (48)	37.9 (74)	-2.7 (29)	10.4 (51)	14.8 (82)	26.7 (83)
Total	92.5% (48)	39.4% (64)	-4.8% (51)	8.7% (78)	16.6% (61)	26.5% (86)

Note: Rankings are the numbers in parenthesis . (1) is the highest ranking; (100) is the lowest ranking.

Source: SEI Corporation for domestic common stocks. The World Markets Company for international common stocks. Returns are time-weighted rates of return.

Table VIII

ANNUALIZED RATES OF RETURN FOR MARKET INDICES

Index	Fiscal Year 1986	Fiscal Year 1987	Fiscal Year 1988	Fiscal Year 1989	Fiscal Year 1990	Fiscal Years 1986-90
Standard & Poor's 500 Stock Index	35.9%	25.2%	-6.9%	20.5%	16.5%	17.3%
Europe, Australia, Far East Stock Index	89.0	58.3	4.1	9.5	3.3	28.6
Salomon Brothers Broad Investment - Grade Bond Index	19.9	5.6	8.1	12.2	7.7	10.6
91-Day U.S. Treasury Bills	7.1%	5.6%	5.5%	7.8%	7.9%	6.8%

Table IX

PUBLIC EMPLOYEES' RETIREMENT TRUST FUND DEBT, TOTAL SECURITIES AND TOTAL FUND Total Rates of Return (and Rankings)

Asset Class	Fiscal Year 1986	Fiscal Year 1987	Fiscal Year 1988	Fiscal Year 1989	Fiscal Year 1990	Fiscal Years 1986-90
Marketable Debt Securities	22.6% (20)	5.6% (56)	7.9% (48)	14.3% (5)	6.9% (70)	11.3% (7)
Total Marketable Securities	30.3 (20)	12.3 (35)	0.9 (60)	14.8 (46)	10.6 (44)	13.4 (26)
Total Fund Assets	25.5% (33)	11.8% (40)	2.0% (58)	14.1% (46)	10.3% (33)	12.5% (40)

Note: Rankings are the numbers in parenthesis. (1) is the highest rank; (100) is the lowest.

Source: SEI Corporation. Returns are time-weighted rates of return.

International Common Stock

International common stocks have produced the highest returns for the fund, averaging over 26 percent for the last five years. However, the managers' performance relative to other funds and market indices has been poor. To improve the performance of international common stocks, a competitive selection of managers is expected to be undertaken in 1991 after first establishing by contract a custodian bank for international investments. The custodian bank is necessary to consider non-bank investment adviser firms as managers, since such firms do not provide custody services. These non-bank adviser firms offer superior performance and a larger number of competitors to choose from. Responses to a request for proposals for securities custody services have been received and a contract including provisions for international custody is expected to be in place early in 1991.

Marketable Debt Securities

During the last five fiscal years, performance of investments in marketable debt securities has been in the top 7 percent of the rankings, as indicated by Table IX. A significant factor in the marketable debt securities performance is the longer than average maturities of debt instruments held by the fund. Table X compares the average maturity of the fund's marketable debt to the median of state retirement funds over $500 million in size.

It is interesting to note that during fiscal years 1985-1989 the rates of return on long-term governments, 15.49%, did exceed those on long-term corporates, 15.02%, and intermediate governments, 11.37%. This diverges from the long-term (1926-1989) experience cited in Table III. Thus, the fund's emphasis on long Treasuries through fiscal year 1989, as indicated by Tables V and X was beneficial to the fund's performance. However, as Tables V and X also indicate, there was a shift in emphasis during 1990 to corporate and intermediate-term government debt that is expected to provide good performance in the future as these asset classes return to their historical performance patterns.

Table X

MARKETABLE DEBT SECURITIES
Average Maturity
(years)

Fiscal Year End	Public Employees' Retirement Trust Fund	Median for Large State Retirement Funds
1985	13.0	9.8
1986	11.1	8.0
1987	14.5	9.4
1988	16.0	8.6
1989	13.7	9.5
1990	13.2	8.4

Source: SEI Corporation

The recent superior performance of long-term debt was largely due to the unique historical occurrence of record high inflation rates in the late 1970's and early 1980's. The high inflation caused the Federal Reserve to push interest rates to record levels in order to squelch runaway prices. In the latter part of the 1980's, as inflation and interest rates receded from these record highs, long-term bond prices soared, producing record high returns.

Real Estate Equities

Real estate equities have produced the lowest returns for the fund during the period 1986-90. In the late 1970's and early 1980's, strong inflation resulted in rapid appreciation of real estate, as it did for other hard assets. Combined with extraordinary tax incentives for real estate investments, the run-up in real estate prices produced very high returns to investors. Tax-exempt investors such as pension funds could fully benefit from this market movement, as well as private investors. Tax-exempt institutions could carve out a share of the tax benefits through joint ventures with taxable parties, in addition to benefiting from the general bidding up of property values by taxable investors.

For institutional investors such as pension funds which would hold real estate as part of a portfolio of various classes of investments, real estate also offered the attraction of increasing diversification. Diversification into real estate was particularly desirable because real estate rates of return have had a very low correlation with returns from other classes of investments. This meant much less volatility in returns for the total portfolio. So overall, real estate seemed to be the perfect investment -- offering the highest returns but also reducing risk more than other investments.

These powerful stimuli led to excessive amounts of capital being made available for financing real estate, rampant speculative construction, and ultimately the severest overcapacity the industry has seen. The inevitable downturn in the cycle was acutely more pronounced as a result of the Tax Reform Act of 1986 which eliminated or strictly curtailed most of the tax benefits for real estate investments.

The supply of real estate is highly inelastic in the short-run, due to its long lead times for construction and its long duration once constructed before it's finally "consumed" and demolished. Thus, real estate cycles are among the longer of economic cycles. Even in the face of the recent prolonged economic expansion, real estate markets remained difficult. Eventually, real estate returns should improve, but absent the return of a highly inflationary environment and liberal tax incentives, real estate is not expected to yield the heady returns that formerly characterized such investments.

Table XI contains the returns for real estate equity managers for the last five years while Tables XII and XIII show the diversification of the managers' real estate investments geographically and by property type. As Table XI indicates, returns for the total real estate equities portfolio for the last five years have been slightly below the middle of the pack of real estate equity funds in the SEI universe, although a bit above the market index for such funds. The fund has been in the process of withdrawing from the worst performing manager's fund, John Hancock Properties, since January, 1986. At the end of fiscal year 1990, the Hancock investment represented roughly one-half percent of total real estate equity investments.

Real estate equity investments to date have consisted of shares of pools of commingled investments with other tax-exempt funds. These pools are managed by the firms shown in Table XI. For small funds, commingled pools offer diversification and an efficient means of investing in real estate.

Table XI

PUBLIC EMPLOYEES' RETIREMENT TRUST FUND
REAL ESTATE EQUITY MANAGERS
Total Rates of Return
(and Rankings)

Manager	Fiscal Year 1986		Fiscal Year 1987		Fiscal Year 1988		Fiscal Year 1989		Fiscal Year 1990		Fiscal Years 1986-90	
Aetna Capital Management	8.2%	(60)	6.0%	(64)	5.1%	(69)	5.8%	(61)	4.5%	(78)	5.9%	(67)
John Hancock Properties	6.3	(84)	-2.4	(96)	3.4	(78)	-12.6	(100)	-0.9	(97)	-1.4	(97)
Equitable Real Estate Investment Management	8.3	(59)	7.9	(39)	6.6	(55)	8.0	(38)	6.7	(48)	7.5	(46)
Sentinel Real Estate Corporation	9.9	(43)	6.2	(63)	7.2	(50)	5.9	(61)	2.0	(89)	6.2	(65)
J.M.B. Institutional Realty Corporation	8.8	(56)	8.8	(32)	7.3	(49)	11.5	(12)	6.4	(52)	8.6	(35)
J.P. Morgan Investment Management	13.3	(22)	13.1	(14)	9.2	(34)	9.2	(29)	6.2	(54)	10.2	(18)
Karsten Realty Advisors	7.4	(67)	8.6	(33)	10.1	(26)	6.7	(51)	6.5	(51)	7.8	(45)
Prudential - PRISA	5.6	(NA)	-		-		-		-		5.6	(NA)
Total Real Estate Managers	8.6	(56)	6.9	(52)	7.0	(55)	7.3	(30)	4.6	(78)	6.9	(54)
National Council of Real Estate Investment Fiduciaries Index	8.9%		4.7%		7.1%		6.7%		5.3%		6.5%	

Note: Rankings are in parenthesis. (1) is the highest ranking. (100) is the lowest ranking.

Source: SEI Corporation. Returns are time-weighted rates of return.

Table XII

PUBLIC EMPLOYEES' AND TEACHERS' RETIREMENT TRUST FUND
REAL ESTATE EQUITIES
GEOGRAPHICAL DIVERSIFICATION
(percent of market value as of March 31)

Manager or Fund	Year	East					South					Midwest					West				
		86	87	88	89	90	86	87	88	89	90	86	87	88	89	90	86	87	88	89	90
Aetna		19%	20%	13%	17%	19%	19%	18%	17%	17%	16%	7%	6%	6%	5%	3%	55%	56%	64%	61%	62%
Equitable		30	32	29	33	33	29	27	29	26	24	17	17	16	15	19	24	24	26	26	24
John Hancock*		29	30	31	22	22	22	23	22	29	29	23	22	22	12	12	26	25	25	37	37
J.M.B Fund III/IV		22	12	21	30	29	27	34	26	18	16	30	24	23	27	28	21	30	30	25	27
Sentinel		1	1	1	3	2	53	52	50	49	50	15	12	12	12	13	31	35	37	36	35
Karsten		0	0	0	0	0	10	5	5	5	4	0	0	0	0	0	90	95	95	95	96
J.P. Morgan		57	54	55	62	63	27	25	23	19	18	16	20	21	18	14	0	1	1	1	5
Weighted average of Alaska Funds		23	21	21	24	19	27	26	25	23	29	15	14	14	13	16	35	38	40	40	36
Weighted average of all open end funds in Evaluation Associates, Incorporated database.		28%	28%	27%	30%	32%	26%	26%	25%	25%	23%	14%	15%	15%	14%	14%	32%	31%	33%	31%	31%

Notes:
* *John Hancock: used 12-31-88 information for 1989 and 1990*

Table XIII

PUBLIC EMPLOYEES' AND TEACHERS' RETIREMENT TRUST FUND
REAL ESTATE EQUITIES
DIVERSIFICATION BY PROPERTY TYPE
(percent of market value as of March 31)

Manager or Fund	Year	Office					Retail					Industrial					Residential					Hotel				
		86	87	88	89	90	86	87	88	89	90	86	87	88	89	90	86	87	88	89	90	86	87	88	89	90
Aetna		46%	45%	46%	40%	44%	18%	19%	20%	24%	17%	24%	23%	24%	21%	21%	6%	7%	7%	11%	14%	6%	7%	3%	4%	4%
Equitable		42	40	45	43	39	36	36	33	38	43	14	15	14	13	13	0	0	0	1	1	8	8	8	5	4
John Hancock[1]		35	34	34	64	64	11	10	11	6	6	40	39	39	21	21	11	14	14	6	6	3	3	2	3	3
JMB Fund III/IV		32	27	35	43	44	68	73	65	53	51	0	0	0	4	4	0	0	0	0	1	0	0	0	0	0
Sentinel		9	8	7	7	6	3	8	10	10	11	10	2	2	2	1	78	82	81	81	82	0	0	0	0	0
Karsten		5	5	5	4	3	79	80	81	83	85	16	15	14	13	12	0	0	0	0	0	0	0	0	0	0
J.P. Morgan		55	51	47	50	41	38	36	35	30	35	5	11	16	18	21	0	0	0	0	1	2	2	2	2	2
Weighted Average of Alaska Funds		29	29	30	30	28	27	37	35	34	31	15	10	10	8	8	26	24	23	28	32	2	2	1	1	1
Weighted Average of all open end funds in Evaluation Associates, Inc. database.		47%	44%	44%	41%	36%	22%	23%	23%	26%	28%	16%	17%	16%	15%	17%	8%	10%	10%	12%	13%	7%	6%	7%	6%	6%

Notes:
1. *John Hancock: used 12-31-88 information for 1989 and 1990*

In the future, the fund's investments in real estate may take the form of a separately managed account for the fund or investments directed by the fund. Directed investments may take the form of individual, partnership, or joint venture ownership. These changes will improve the ability to select and structure properties with risk, return, and diversification attributes most beneficial to the fund.

Separate account or directed real estate investments are now possible because the size of the fund has grown to the point of being able to make such investments in an efficient and diversified manner. It is also made possible by enactment of legislation, Chapter 141, in 1988 that permits such investments. Formerly, the fund was restricted by statute to real estate equity pools.

A request for proposals for a real estate advisory firm to provide professional advice in developing policy and selecting and structuring real estate investments has been advertised. This is the first step in beginning separate account or directed investment in real estate equities. At the same time, commingled pool investments may still be considered for investment in smaller properties in an efficient manner and to provide greater diversification.

Real Estate Mortgages

The total return measurement for real estate mortgage investments in Table VI is of limited usefulness. These investments are not readily marketable and they are expected to be held to maturity. In this case, the realized rates of return may be more pertinent. Realized returns include the interest on mortgage loans and any realized gains or losses on disposition of foreclosed properties but exclude changes in market value. Table XIV shows that the realized rates for mortgages have declined.

Table XIV

PUBLIC EMPLOYEES' RETIREMENT TRUST FUND
MORTGAGE LOANS
REALIZED RATES OF RETURN

Fiscal Year	Realized Return
1985	13.2%
1986	12.1
1987	13.6
1988	10.9
1989	9.0
1990	9.8
1985-90	11.4%

In part, this is due to the fact that interest rates have declined from the early 1980's. This resulted in lower mortgage returns due to lower interest rates on new purchases. More importantly, since new purchases stopped essentially in fiscal year 1986, heavy payoffs of mortgage loans made at high rates in the early 1980's pushed the average yield down on the remaining mortgage portfolio. Most of the payoffs came from refinancings with other lenders. Table XV reflects these activities.

Mortgage returns have also been hurt since fiscal year 1986 by heavy delinquencies and defaults resulting from the Alaska recession. The mortgage loans have been highly concentrated inside Alaska. At June 30, 1990, only 12.5% were secured by property outside Alaska.

Table XV

PUBLIC EMPLOYEES' AND TEACHERS' RETIREMENT TRUST FUNDS
MORTGAGE LOAN ACTIVITY

Fiscal Year	Number of Mortgage Purchases	Number of Mortgage Payoffs	Number of Delinquencies and Defaults at June 30 [1]
1982	935	NA	NA
1983	772	280	82
1984	813	707	75
1985	725	508	127
1986	328	1,145	231
1987	7	1,237	406
1988	0	255	491
1989	0	160	556
1990	0	117	481

Note:

[1] *Loans 60 or more days delinquent plus real estate properties owned ("REO").*

Tables XV and XVI show the history of the fund's delinquent loans and real estate owned. The percentages for delinquent loans and real estate owned are magnified by the fact that the mortgage loan portfolio has been shrinking, as shown in Table XVII, with the shrinkage coming from good, commercially-viable loans paying off while the bad loans remain with the fund. Nevertheless, liquidation of real estate owned, with the exception of one property, has resulted to date in a net gain for the fund, disregarding the opportunity costs of invested funds. This is shown in Table XVIII.

As the 132 properties currently owned by the fund and additional foreclosures of delinquent loans are disposed of, losses are expected overall. The current estimate of loss is reflected in the $6,191,000 loan loss allowance applied against the value of mortgage assets on the fund's books.

Table XVI

PUBLIC EMPLOYEES' RETIREMENT TRUST FUND
MORTGAGE LOAN DELINQUENCIES AND REAL ESTATE OWNED (REO)*
($ millions)

June 30	60 Days or More Delinquent	REO	Total Delinquencies and REO	60 Days or More Delinquent	REO	Total Delinquencies and REO
1983	1.9%	.7%	2.7%	$4.4	$1.7	$6.1
1984	1.7	.6	2.3	4.5	1.7	6.2
1985	2.9	.7	3.6	8.7	2.1	10.8
1986	7.6	.9	8.5	18.0	2.2	20.2
1987	23.2	3.9	27.2	32.1	5.4	37.6
1988	26.5	7.6	34.1	31.9	9.1	41.0
1989	26.8	11.3	38.0	29.7	12.5	42.2
1990	22.1%	13.6%	35.7%	$22.8	$14.0	$36.8

Note:
* *Percentages are the percentages of total loans and REO*

Table XVII

PUBLIC EMPLOYEES' RETIREMENT TRUST FUND
MORTGAGE ASSET ALLOCATIONS AT COST
($ millions)

June 30	Total Fund	Mortgages	Mortgage as % as Total Fund
1980	$400.2	$140.0	35.0%
1981	515.4	162.5	31.5
1982	645.4	201.5	31.2
1983	815.9	228.9	28.1
1984	1,016.3	269.0	26.5
1985	1,241.1	297.6	24.0
1986	1,522.5	237.8	15.6
1987	1,830.6	138.3	7.6
1988	1,978.5	120.5	6.1
1989	2,206.4	111.0	5.0
1990	$2,544.4	$103.0	4.1%

Table XVIII

PUBLIC EMPLOYEES' RETIREMENT TRUST FUND
LIQUIDATION OF REAL ESTATE OWNED (REO)

Fiscal Year	# REO's Sold	Gain (Loss)
1981	12	$ 144,239.58
1982	5	(3,995.43)
1983	4	259,068.22
1984	1	(88,735.67)
1985	2	31,191.03
1986	1	(1,184,604.54)
	2	6,160.05
1987	14	57,187.53
1988	11	54,041.23
1989	16	(56,300.78)
1990	22	241,026.25
	90	**$ (546,979.99)**

Importance to Beneficiaries of Investment Policy and Returns

Investment income is of paramount importance to a pension plan. A study by Frank Russell Co. indicates that, over the life of a defined-benefit plan, at least 80 percent of the benefits paid come from investment income, and only 20% from contributions. For any given participant, about 60% of the investment income accrues after retirement when contributions have ceased.

The current importance of investment income to the fund and its beneficiaries can be seen in the fact that investment income totaled $1,102.4 million for the fiscal period 1985 to 1990 while assets grew $1,515.5 million in book value. Total investment income exceeded contributions as a source of growth.

Table XIX shows the growth of the Public Employees' Retirement Trust Fund for the period and the sources of that growth. Noteworthy is the fact that contributions have held rather steady while benefits have increased. This has been possible due to total returns averaging 13.8% per annum over the six-year period, well in excess of the 9%[1] on which contributions are based.

[1] *The actuarial rate of return is technically calculated on a different basis than the total return concept. The actuarial rate involves valuation of fixed income assets at cost rather than market and determines equity values using a five-year moving average of the ratio of market to book value.*

Table XIX

PUBLIC EMPLOYEES' RETIREMENT TRUST FUND
SOURCES OF ASSET GROWTH
($ millions)

Fiscal Year	Contributions*	Benefits	Net Contributions	Ordinary Income	Realized Capital Gains	Total Income	Change in Unrealized Capital Gains	Total Return	Year End Assets at Book	Year End Assets at Market **
1984									1,028.9	964.7
1985	153.5	48.8	104.7	112.3	1.8	114.1	115.9	230.0	1,241.1	1,295.5
1986	161.2	55.3	105.9	122.9	58.9	181.8	159.9	341.7	1,525.4	1,733.8
1987	145.1	67.7	77.4	118.1	107.9	226.0	-27.8	198.2	1,826.4	2,005.8
1988	144.4	85.3	59.1	135.7	15.8	151.5	-106.9	44.6	2,035.3	2,107.1
1989	144.0	100.5	32.3	156.6	38.5	195.1	111.0	306.1	2,270.8	2,453.7
1990	166.1	107.4	58.7	177.3	56.6	233.9	13.9	247.8	2,544.4	2,741.2
Total	914.3	465.0	438.1	822.9	279.5	1,102.4	266.0	1,368.4		

Notes: * Net of refunds.
** Mortgages at cost for fiscal years 1984 through 1986.

Sources:
1. *Comprehensive Annual Financial Report; Alaska Department of Administration; June 30, 1989 and 1990.*
2. *Public Employees' Retirement Fund, Teachers' Retirement Fund, Annual Financial Report; Division of Retirement and Benefits; June 30, 1988 and June 30, 1985.*
3. *Audited Financial Statements, Alaska Department of Revenue for fiscal years 1986-1990.*
4. *Monthly Financial Reports; June 30, 1985; Treasury Division; Alaska Department of Revenue.*

Also noteworthy is the fact that net contributions (i.e., contributions minus benefits) have decreased. Should a significant portion of investment income be required in the future to meet benefit payments, there would be important implications for investment policy. Asset allocations could then be expected to favor fixed income investments more than would otherwise be the case, in order to lend greater stability to cash flows. However, as discussed under the section on investment policy, actuarial projections do not indicate a likelihood of significant reliance on investment income to meet benefit payments.

The main concern of beneficiaries in regard to the fund is whether the size of the fund is keeping up with the growth in the present value of the benefits likely to be paid in the future. Table XX presents two measures of this key relationship.

Table XX

PUBLIC EMPLOYEES' RETIREMENT SYSTEM
FUNDING RATIOS

Fiscal Year End	Actuarial Ratio[1]	GASB Statement No. 5 Ratio[2]
1977	65.9%	NA
1978	69.1	NA
1979	68.2	NA
1980	71.3	NA
1981	82.1	NA
1982	79.2	NA
1983	84.6	NA
1984	87.7	NA
1985	93.9	89.6%
1986	102.0	111.8
1987	99.6	105.5
1988	93.0	94.5
1989	91.6%	95.7%

Sources:

[1] *Actuarial Valuation Report; William M. Mercer Meidinger Hansen, Inc.; various years*

[2] *Independent Auditor's Report, Public Employees' Retirement System; June 30, 1989*

The ratios in Table XX are a comparison of the Public Employees' Retirement Trust Fund assets to the present value of benefits projected to be payable in the future. The difference between the ratios is that the Governmental Accounting Standards Board ("GASB") ratio values the assets as of the year end while the actuary uses a five-year moving average.

Within the last few years, the system achieved full (or more than full) funding for the first time since its inception. When the retirement plan was initiated, a funding gap was created by credits granted for employees' service prior to the plan's start-up. The other factors that create or perpetuate a funding gap are retroactive benefit increases, actual experience less favorable than actuarial assumptions, and any deficiency in payment of actuarially required contributions.

Achievement and maintenance of full funding is the best assurance beneficiaries have of receiving the benefits to which they are entitled. At least one court[2] has held that employees have a vested property right to amounts deposited in a retirement trust fund. In the future, investment policy and returns will be ever more critical to maintenance of full funding as investment returns loom ever larger in the flow of funds. Table I projects investment earnings to constitute almost 70% of the total inflow to the fund by fiscal year 2004, compared to approximately 56% in fiscal year 1990.

Investment returns in excess of funding requirements lead to either increased benefits or reduced employer contributions, usually both. Absent enactment of legislation increasing statutory benefits under the plan, retired employees who were hired before July 1, 1986 still can benefit directly from high investment returns through Post Retirement Pension Adjustments ("PRPA's"). These are increases in retirement annuity payments granted annually to offset the cumulative effects of inflation. They are granted each year by the Commissioner of Administration only if the condition of the Public Employees' Retirement Trust Fund permits. Table XXI traces the PRPA's that have been granted. Retired employees who were hired after July 1, 1986 receive automatic PRPA's which are based on inflation during the prior calendar year and which are not dependent on the financial condition of the Trust Fund.

Table XXI

PUBLIC EMPLOYEES' RETIREMENT SYSTEM
POST RETIREMENT PENSION ADJUSTMENTS (PRPAs)

July 1	PRPA
1967	none
1968	none
1969	1.5%
1970	1.5
1971	1.5
1972	none
1973	2.5
1974	3.0
1975	none
1976	none
1977	none
1978	4.0
1979	4.0
1980	4.0
1981	4.0
1982	4.0
1983	none
1984	4.0
1985	4.0
1986	4.0
1987	none
1988	4.0
1989	4.0%

[2] *West Virginia Supreme Court. 1988. Dadisman V. Moore, et al (Case No. 18343). Charleston, West Virginia.*

Beyond the use of high investment returns to augment benefits, their use to reduce employer contributions is in some ways of benefit to employees. Lower contributions can be expected to increase the willingness and ability of employers to make the required payments. A reduced pension burden on employers increases the security of benefits being paid. Of course, even greater security could be had by leaving the amounts in the fund to maintain an overfunded status. However, the Constitutional obligation of employers to provide the benefits makes the question of security less compelling. This is especially so for employers with the power of taxation. If nothing else, reduced contributions increase the possibility of eventual statutory amendments to provide greater benefits.

Table XXII displays employer contribution rates for the system since 1980. Rates are influenced by many factors besides investment earnings. The large increase in 1992 rates is attributable almost entirely to increases in retiree health insurance premiums. Investment returns were in excess of the actuarially assumed earnings rate and resulted in a decrease of 0.39% in the contribution rate that otherwise would have been required.

Table XXII

PUBLIC EMPLOYEES' RETIREMENT SYSTEM
EMPLOYER CONTRIBUTION RATES[1]

Fiscal Year	Percent of Payroll	Fiscal Year	Percent of Payroll
1980	11.96%	1987	10.62
1981	13.10	1988	9.38
1982	13.78	1989	9.38
1983	13.78	1990	9.54
1984	13.68	1991	12.00
1985	13.66	1992	14.20%
1986	13.73		

Notes:

[1] Changes in actuarial methods and assumptions for the years shown have been as follows:

The actuarial funding method for the years through June 30, 1984 was attained age normal. Effective July 1, 1984, the Plan adopted the projected unit credit actuarial funding method.

Effective July 1, 1980, the plan adopted new actuarial assumptions. The assumed rate of earnings was increased from 6% to 8% per year. The salary increase assumption was changed from 6% per year until age thirty-nine and 5% per year thereafter to 8% for the first five years of employment and 7% thereafter. Health care cost inflation was set at 8%. Turnover and disability assumptions were revised based upon actual experience in 1980 through 1981.

Effective July 1, 1986, the plan adopted new actuarial assumptions. Actuarial funding surpluses are amortized over five years rather than twenty-five years. The assumed rate of earnings was increased from 8% to 9% per year. The salary increase assumption was lowered to 6.5% per year for the first five years of employment and 5.5% per year thereafter. Health care cost inflation was increased to 9%. Turnover and disability assumptions were revised based on actual experience in 1981 through 1985.

Source: *Actuarial Valuation Reports, William M. Mercer Meidinger Hansen, Inc.*

The critical and immense importance of investment earnings can be determined from sensitivity analyses of projected system cash flows prepared by the actuary. They show that a sustained 1 percent higher rate of return (10% instead of the 9% assumed by the actuary) would reduce the employer contribution rate from a projected 12.25% in 2004 to 6.70%. This 45.0% reduction in employer contributions 15 years from now is projected by the actuary to produce a savings of $127 million for the year. The actuary projects total savings in employer contributions for the next 13 fiscal years to amount to $790 million if the higher rate of return is achieved.

One sense of the scope of the beneficiaries' interests at stake can be gained from the size of the Alaska retirement funds under management by the Department of Revenue in comparison to other tax-exempt funds. Table XXIII shows the ranking of the combined Public Employees' and Teachers' Retirement Trust Funds relative to the assets of other tax-exempt funds.

Table XXIII

TAX-EXEMPT ASSET RANKINGS

Type of Fund	Number of Funds Larger Than Alaska Retirement Funds		Number of Funds Smaller Than Alaska Retirement Funds	
Corporate Pension Funds	35		10301	
Public Pension Funds	36		571	
Union Pension Funds	3		1466	
Endowments	2		499	(Including Harvard)
Foundations	1	(Ford Foundation)	747	

Source: The Money Market, Directory of Pension Funds and their Investment Managers, 1990. McGraw-Hill.

One of the most important duties of the Commissioner of Revenue -- as a result of the fund's trust character, the scale of its assets, the fund's heavy and growing reliance on investment returns, and the importance of superior returns for increased security and benefits for beneficiaries -- is the determination of investment policy and the expert implementation of that policy in the interest of the fund's beneficiaries. This report is one means of assuring the performance of those duties. An informed system membership may be the best safeguard of beneficiaries' interests over the long run.

Supplementary Fiscal Year 1990 Information

Appended are three schedules containing supplementary information on the Public Employees' Retirement Trust Fund for the fiscal year ended June 30, 1990. Accompanying the schedules are an independent auditor's report on, and notes to, the schedules.

The Report of Assets shows the amounts that were invested in different types of investments (book value) and their respective market values and expected annual income flows. The fund's equity investments have relatively low income yields because the income estimates do not include the highly variable capital gains which are usually realized annually on those investments. When capital gains are included, equity investments normally have higher total returns than fixed income investments. On June 30, 1990 the fund's market value of $2,741 million exceeded its book value by $196 million and its income from investments, excluding capital gains, is expected to be about $174 million in the current fiscal year.

The second schedule, Reconciliation of the Fund's Book Value shows sources of the fund's growth in book value during the year. This statement reflects contributions net of benefit payments.

The third schedule, Distribution of Investment Returns by Asset Categories, shows the fiscal year's realized investment returns on each of the different types of investments. Returns on the fixed income investments, which constitute 52% of the entire fund, are rather stable and do not vary much from year to year. Equity returns, on the other hand, are highly variable on a year-to-year basis because capital gains can be such an important element of their total returns. This last schedule indicates realized capital gains were the dominant part of common stock returns during 1990. Over the last sixty-three years, capital gains, including unrealized as well as realized gains, have averaged slightly more than half of total returns on common stocks.

The realized rates of return shown in the third schedule are of limited relevance for a fund such as this with a long-term investment horizon. They are included as supplementary information.

KPMG Peat Marwick

Certified Public Accountants

601 West Fifth Avenue
Suite 700
Anchorage, AK 99501

Independent Auditors' Report

State of Alaska
Department of Revenue
Division of Treasury:

We have audited and reported separately herein on the financial statements of the Public Employees' Retirement Trust Fund (Fund) as of and for the year ended June 30, 1990.

Our audit was made for the purpose of forming an opinion on the basic financial statements of the Fund taken as a whole. The supplementary information included in Schedules 1 through 3 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such supplementary information on Schedules 1 and 3 has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

KPMG Peat Marwick

August 31, 1990

Schedule 1

STATE OF ALASKA
DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Public Employees' Retirement Trust Fund

Report of Assets

June 30, 1990

(000s omitted)

Assets	Percentage of total book value	Book value	Market value	Annual income estimate	Yield to maturity at book value	Current yield at market value
Equities (external managers):						
Real estate equities	6%	$ 140,027	154,163	8,052	5.75%	5.22%
Domestic equities fund	30	758,775	854,128	29,972	3.95	3.51
International equities	7	183,654	198,346	4,333	2.36	2.19
Total equities	43	1,082,456	1,206,637	42,357	3.91	3.51
Fixed income (Treasury managed):						
Mortgages	4	96,783	100,355	9,233	9.54	9.20
Corporate issues	13	330,332	336,397	31,679	9.59	9.42
U.S. Treasury issues	30	776,115	838,950	77,068	9.93	9.19
Money market issues	5	140,141	140,310	11,912	8.50	9.55
Total fixed income	52	1,343,371	1,416,012	129,892	9.67	9.17
Total investments	95	2,425,827	2,622,649	172,249	7.10	6.57
Cash (interest earning)	1	18,817	18,817	1,530	8.13	8.13
Total investible assets	96	2,444,644	2,641,466	$173,779	7.11	6.58
Net accruals receivable	4	93,937	93,937			
Contributions receivable	-	5,793	5,793			
Total fund assets	100%	$2,544,374	2,741,196			

See accompanying notes to supplementary information.

Schedule 2

STATE OF ALASKA
DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Public Employees' Retirement Trust Fund

Reconciliation of the Fund's Book Value

Fiscal year ended June 30, 1990

(000s omitted)

			Percentage of book value change
Investment returns:			
Income earned and received	$145,227		53.1%
Capital gains realized	56,605		20.7
Total returns received		201,832	73.8
Accrued income receivable	32,314		
Total returns receivable		32,314	11.8
Total investment returns		234,146	85.6
Less investment expenses		(4,150)	(1.5)
Net investment returns		229,996	84.1
Net contributions received		37,752	13.8
Net contributions receivable		5,793	2.1
Net change in book value		273,541	100.0%
Fund's book value at June 30, 1988		2,270,833	
Fund's book value at June 30, 1989		$2,544,374	

See accompanying notes to supplementary information.

Schedule 3

STATE OF ALASKA
DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Public Employees' Retirement Trust Fund

Distribution of Investment Returns by Asset Categories at Book Values

Fiscal year ended June 30, 1990

(000s omitted)

Assets	Income received	Gain (loss) realized	Returns received	Income accrued	Total investment returns	Percentage yield on annual average book values
Equities (externally managed):						
Real estate	$ 8,036	-	8,036	-	8,036	5.87%
Domestic equities fund	25,309	42,570	67,879	2,377	70,256	10.22
International equities	4,583	13,012	17,595	-	17,595	10.80
Total equities	37,928	55,582	93,510	2,377	95,887	9.71
Fixed income (internally managed):						
Mortgages	9,249	-	9,249	648	9,897	9.83
Other debt issues	98,050	1,023	99,073	29,289	128,362	10.23
Total fixed income	107,299	1,023	108,322	29,937	138,259	10.20
Total investment returns	$145,227	56,605	201,832	32,314	234,146	10.00

See accompanying notes to supplementary information.

STATE OF ALASKA
DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Public Employees' Retirement Trust Fund

Notes to Supplementary Information

June 30, 1990

The Fund

The Public Employees' Retirement System is a multiple-employer agent defined-benefit, joint-contributory system established by the State of Alaska for the payment of retirement, disability, health and death benefits to or on behalf of qualified employees employed by the state, municipalities, school districts, or other political subdivisions of the state. The Public Employees' Retirement Trust Fund (Fund) is a separate fiduciary trust fund established by state statutes. The Commissioner of Revenue is the Trustee of the Fund and is responsible for the custody of the assets and for investing the Fund for the best financial interest of the beneficiaries.

(1) Summary of Significant Accounting Policies

The accounting and reporting policies for the Fund conform to generally accepted accounting principles. The more significant accounting policies are as follows:

1. Fiscal year figures are for the Fund's fiscal year ending June 30.

2. Net contributions reflect the amounts the Fund received from the Division of Retirement and Benefits and represent the contributions by employees and employers less the amounts of benefits paid or refunded.

3. Dividend income on domestic equities is accrued on their ex-dividend dates. Interest income on domestic debt securities is accrued as earned. Interest income is shown net of amortization of premiums and accretion of discounts. Accrued interest purchased is charged against income at the time of acquisition. International dividends and interest are recognized for income purposes upon notification by the custodian bank.

4. Book value is stated at cost except that the book values of marketable domestic debt issues are adjusted for amortization of premiums and accretion of discounts. Gains or losses on the sale of marketable domestic debt issues are determined on a specific lot identification basis, and gains or losses on the sale of shares in the Consolidated Domestic Equities Fund are determined on an average lot basis.

5. Investment management costs are separately charged to the Public Employees' Retirement System and are not deducted from operating income at the time income is received.

6. Investments are stated on a trade date (ownership) accounting basis, including unsettled transactions as follows: sold securities at proceeds amounts for both book and market values; purchased securities at cost for book value and at closing market prices for market value. Gains and losses on sold securities are recognized as of the trade date.

Market Value

The market value of marketable securities is determined by the custodial agent on the last business day of each month. Real estate equities are valued by the managing firms. The market value of the mortgage investments is estimated by reference to the current secondary mortgage investments as reported by the MGIC Investment Corporation. Their estimate is of limited applicability because of the illiquid status of those investments.

Investments

The Fund's deposits and investments are categorized below pursuant to the Governmental Accounting Standards Board (GASB) Statement No. 3 and GASB Technical Bulletin No. 87-1 to give an indication of the level of safekeeping risk assumed by the Fund at statement date. The Treasury Division does not concur in the interpretation which places international equity investments under Category 2 rather than Category 1.

Deposits

1. Insured or collateralized with securities held by the state or by its custodian in the state's name.

2. Collateralized with securities held by the pledging financial institution's trust department or custodian in the state's name.

3. Uncollateralized.

(Continued)

Investments

1. Insured or registered for which the securities are held by the state or its custodian in the state's name.

2. Uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent in the state's name.

3. Uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent not in the state's name.

	Category at book value		
	1	2	3
	(000s omitted),		
Deposits:			
Cash (interest earning)	$ 18,817	-	-
Investments:			
U. S. Treasury debt	776, 115	-	-
Corporate debt	330, 332	-	-
Domestic equities fund	758,775	-	-
International equities	-	183,654	-
Money market issues	140,141	-	-
Mortgages	96, 783	-	-
Real estate equities	140,027	-	-
Financial futures	-	-	-
	$ 2,260,990	183,654	-

External Investment Management

Domestic equities are assets of the Fund consisting of shares in the Consolidated Domestic Equities Fund currently under external management by contracted managers who have been directed to emphasize domestic corporate common stock investments. International securities are assets of the Fund currently under external management by contracted managers who have been directed to emphasize international corporate common stock investments. Real estate equities are assets of the Fund consisting of units or shares in real estate equity funds which are under external contracted management by various companies.

Yields

Yields on United States Treasury issues and Corporate Fixed Income issues reflect weighted average yields-to-maturity based on either cost values or market values. Yields on domestic equities, international equities, and money market issues reflect current yields based on either cost values or market values. The yields on mortgages reflect a weighted average yield to a ten year average maturity based on cost values and market values. Yields on real estate equities reflect the annualized realized monthly income as related to book values and market values. The yield on the average annual book value is calculated using the average of the beginning and ending of the year book values.

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STATISTICAL SECTION

EMPLOYER CONTRIBUTION RATES
FISCAL YEAR 1990

Employer	Percentage
Adak Region School District	13.00
Akutan, City of	2.37
Alaska, State of	
Policemen, Firemen	12.53
All Other Employees	10.02
Alaska Housing Finance Corporation	0.00
Alaska Municipal League	0.00
Alaska State Housing Authority	12.15
Alaska, University of	3.16
Alaska Geophysical Institute, University of,	3.16
Aleutian Region School District	0.00
Aleutians East Borough	0.00
Aleutians East Borough School District	2.71
Aleutians West Coastal Resource Service Area	9.47
Anchorage, Municipality of	9.59
Anchorage Parking Authority, Municipality of,	6.58
Anchorage School District	9.67
Annette Island School District	9.04
Atka, City of	9.47
Barrow, City of	3.72
Bartlett Memorial Hospital	3.14
Bering Straits Coastal Resource Service Area	9.47
Bering Straits School District	8.90
Bethel, City of	0.00
Bristol Bay Borough	11.39
Bristol Bay Borough School District	14.06
Bristol Bay Coastal Resource Service Area	11.61
Bristol Bay Housing Authority	11.63
Chatham School District	3.40
Chugach Regional School District	5.40
Copper River Basin Regional Housing Authority	14.04
Copper River School District	2.34
Cordova, City of	12.56
Cordova Community Hospital	4.17
Cordova Public Schools	13.72
Craig, City of	4.92
Craig School District	17.83
Delta/Greely School District	9.47
Dillingham, City of	2.23
Dillingham City School District	16.74
Diomede Joint Utilities	9.47

EMPLOYER CONTRIBUTION RATES
FISCAL YEAR 1990

Employer (continued)	Percentage
Elim, City of	9.47
Emmonak, City of	20.03
Fairbanks, City of	12.52
Fairbanks Municipal Utility System	12.52
Fairbanks North Star Borough	0.51
Fairbanks North Star Borough School District	0.51
Fort Yukon, City of	0.00
Galena, City of	5.96
Galena School District	3.70
Grayling, City of	9.47
Haines Borough	9.56
Haines Borough School District	9.47
Haines, City of	1.20
Homer, City of	10.17
Hoonah, City of	6.11
Hoonah School District	18.74
Hooper Bay, City of	0.00
Huslia, City of	9.47
Hydaburg City School District	4.19
Iditarod Area School District	5.17
Juneau Borough School District	6.96
Juneau, City and Borough of	6.97
Kashunamiut School District	8.85
Kaltag, City of	9.47
Kenai, City of	0.00
Kenai Peninsula Borough	9.64
Kenai Peninsula Borough School District	13.15
Ketchikan, City of	13.96
Ketchikan Gateway Borough	9.49
Ketchikan Gateway Borough School District	15.13
King Cove, City of	0.88
Kivalina, City of	9.47
Klawock, City of	17.93
Klawock City School District	9.47
Kodiak, City of	11.71
Kodiak Island Borough	5.34
Kodiak Island Borough School District	4.27

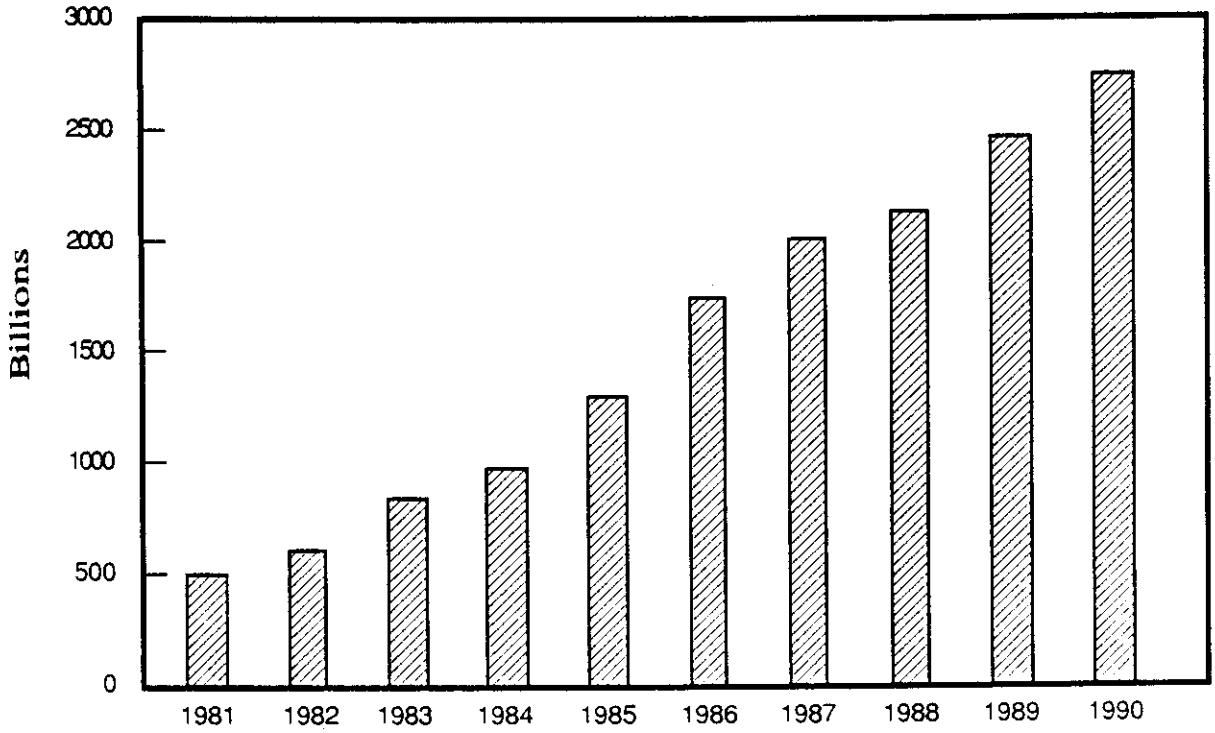
EMPLOYER CONTRIBUTION RATES
FISCAL YEAR 1990

Employer (continued)	Percentage
Kotzebue, City of	0.00
Koyuk, City of	9.47
Kuspuk School District	4.65
Lake and Peninsula Borough	9.47
Lake and Peninsula School District	5.40
Lower Kalskag, City of	9.47
Lower Kuskokwim School District	4.39
Lower Yukon School District	10.01
Matanuska-Susitna Borough	7.53
Matanuska-Susitna Borough School District	7.53
Mekoryuk, City of	9.47
Mountain Village, City of	9.47
Nenana, City of	0.00
Nenana City Public Schools	7.29
Nome, City of	9.33
Nome School District	9.36
Nome Joint Utilities	0.00
Noorvik, City of	9.47
North Pacific Fisheries Management Council	0.00
North Pole, City of	9.88
North Slope Borough	0.59
North Slope Borough School District	5.40
Northwest Arctic Borough	5.74
Northwest Arctic School District	0.00
Old Harbor, City of	9.47
Palmer, City of	12.88
Pelican, City of	11.00
Petersburg, City of	13.56
Petersburg General Hospital	13.56
Petersburg Public Schools	13.56
Pribilof Region School District	0.00
Railbelt School District	1.84
Ruby, City of	18.71
Saint Mary's, City of	15.99
Saint Mary's School District	21.83
Saint Paul, City of	7.04

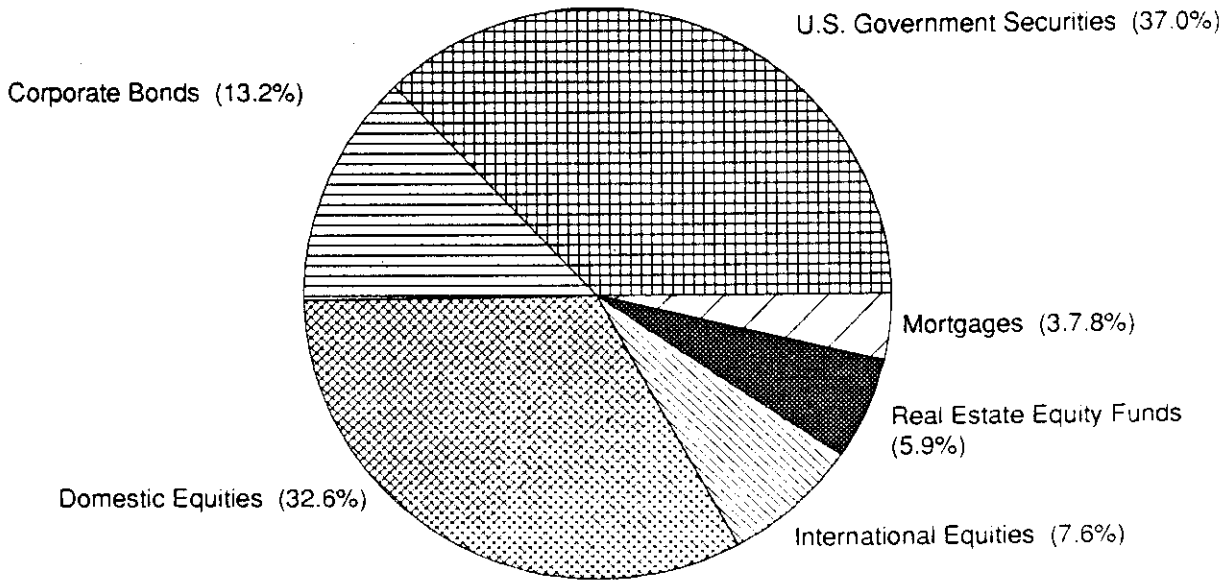
EMPLOYER CONTRIBUTION RATES
FISCAL YEAR 1990

Employer (continued)	Percentage
Sand Point, City of	1.23
Saxman, City of	10.81
Selawik, City Council	9.12
Seward, City of	3.14
Seward General Hospital	20.59
Shishmaref, City of	9.47
Sitka, City and Borough of	13.38
Sitka Community Hospital	0.00
Sitka Borough School District	6.83
Skagway, City of	1.26
Skagway City School District	17.28
Soldotna, City of	14.93
Southeast Islands School District	6.40
Southeast Regional Resource Center	0.00
Southwest Region Schools	3.46
Special Education Service Agency	9.66
Tanana, City of	0.00
Tanana City School District	9.83
Thorne Bay, City of	6.94
Unalakleet, City of	9.47
Unalaska, City of	0.00
Unalaska School District	3.02
Valdez, City of	5.41
Valdez School District	2.10
Wainwright, City of	10.53
Wasilla, City of	7.78
Whittier, City of	7.63
Wrangell, City of	9.71
Wrangell School District	10.13
Yakutat, City of	17.21
Yukon Flats School District	0.00
Yukon-Koyukuk School District	0.00

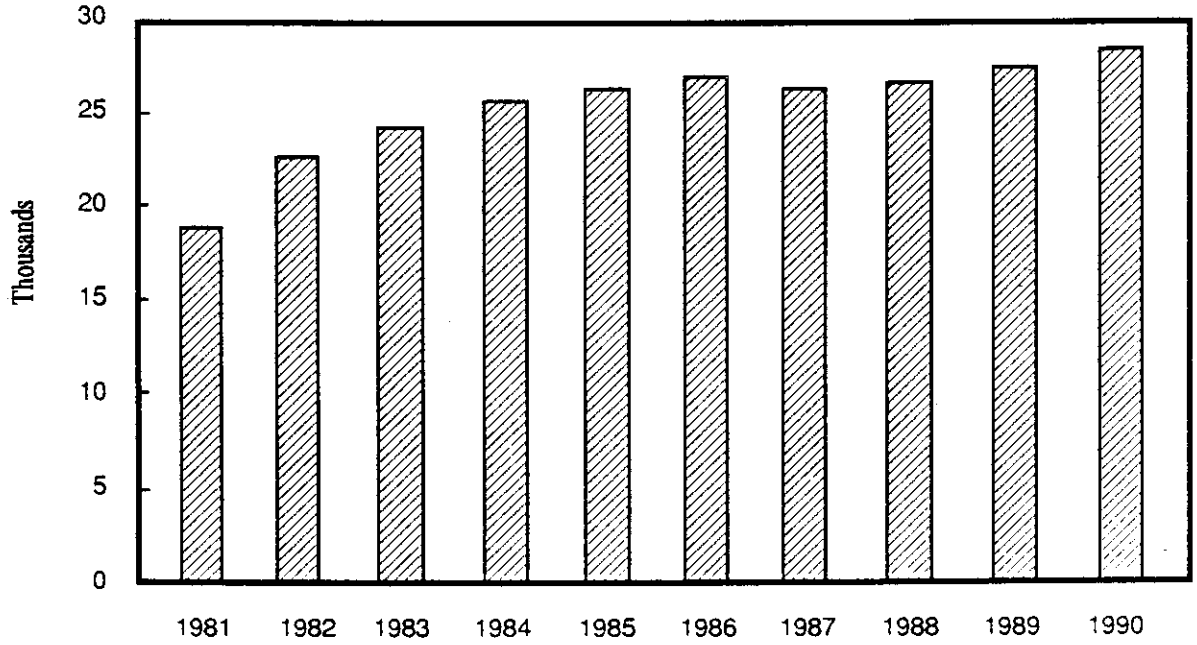
NET ASSETS
10 Year Comparison



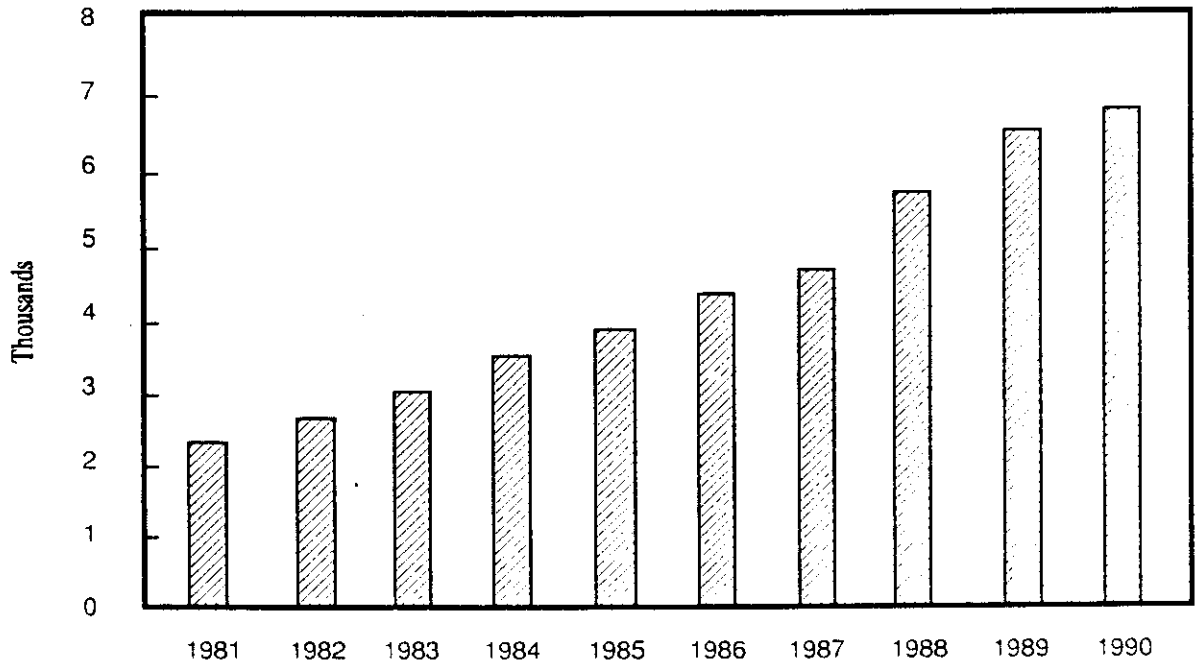
FY 90 COMPOSITION OF INVESTMENTS



ACTIVE MEMBERS
(As of June 30)



RETIREES AND BENEFICIARIES
(As of June 30)

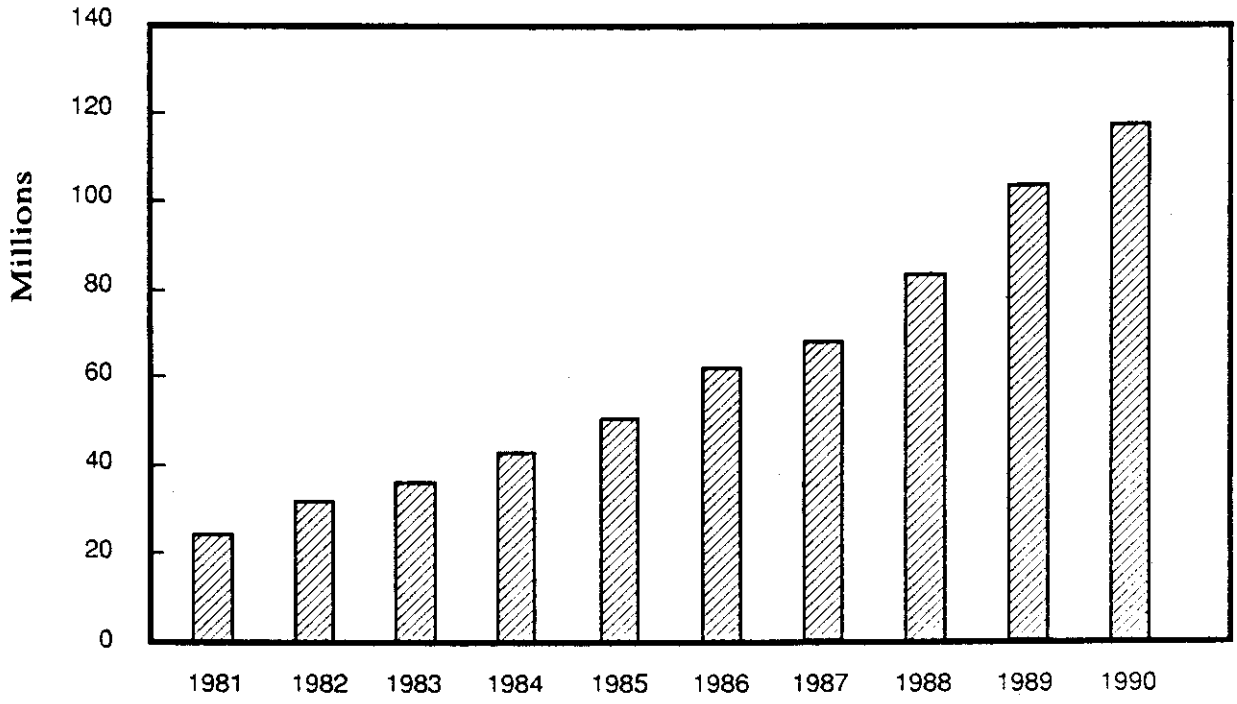


Benefit Payments By Occupation
Fiscal Year 1990

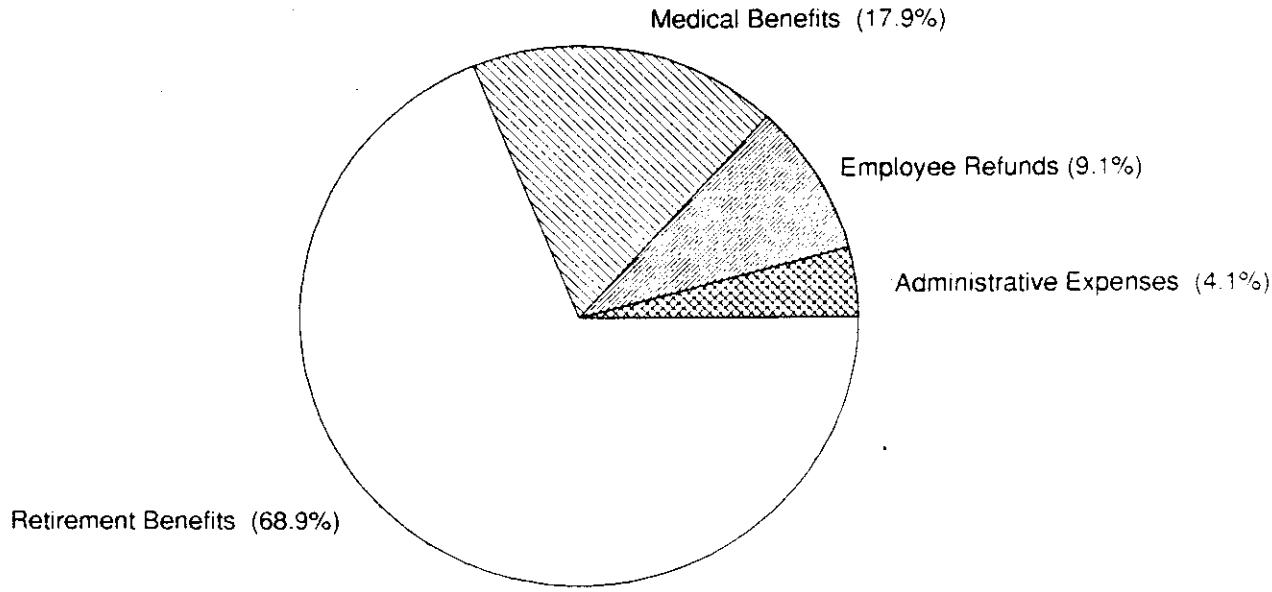
Benefit Type	Regular Retirees	Peace Officer Retirees	Fireman Retirees	* Elected Off. Retirees	Total All Categories
Base	$ 56,512,019	$ 6,394,908	$ 1,234,065	$ 107,635	$ 64,248,627
Cost of Living Allowance	4,734,138	540,169	104,115	15,723	5,394,145
Non-Occupational Death	1,895,415	83,745	72,346	11,119	2,062,625
Occupational Death	215,204	163,842	19,728	- 0 -	398,774
Disability	1,795,950	851,037	171,627	- 0 -	2,818,614
Post Retirement Pension Adjustment	8,780,223	858,441	206,547	18,032	9,863,243
Voluntary Annuity	4,336	- 0 -	- 0 -	- 0 -	4,336
Lump Sum	431,994	1,504	- 0 -	- 0 -	433,498
Recalculation Adjustments	86,889	9,019	1,150	- 0 -	97,058
Benefits Subtotal	**$ 74,456,168**	**$ 8,902,665**	**$ 1,809,578**	**$ 152,509**	**$ 85,320,920**
Medical					$ 22,142,000
Total All Benefits					**$107,462,920**

* Active and Retired Elected Public Officers as of October 13, 1976, were mandatorily transferred to the Elected Public Officers Retirement System (EPORS), which was established by legislation on January 1, 1976. Under current legislation, all other elected officials may participate in the PERS or the TRS, or do not participate at their option.

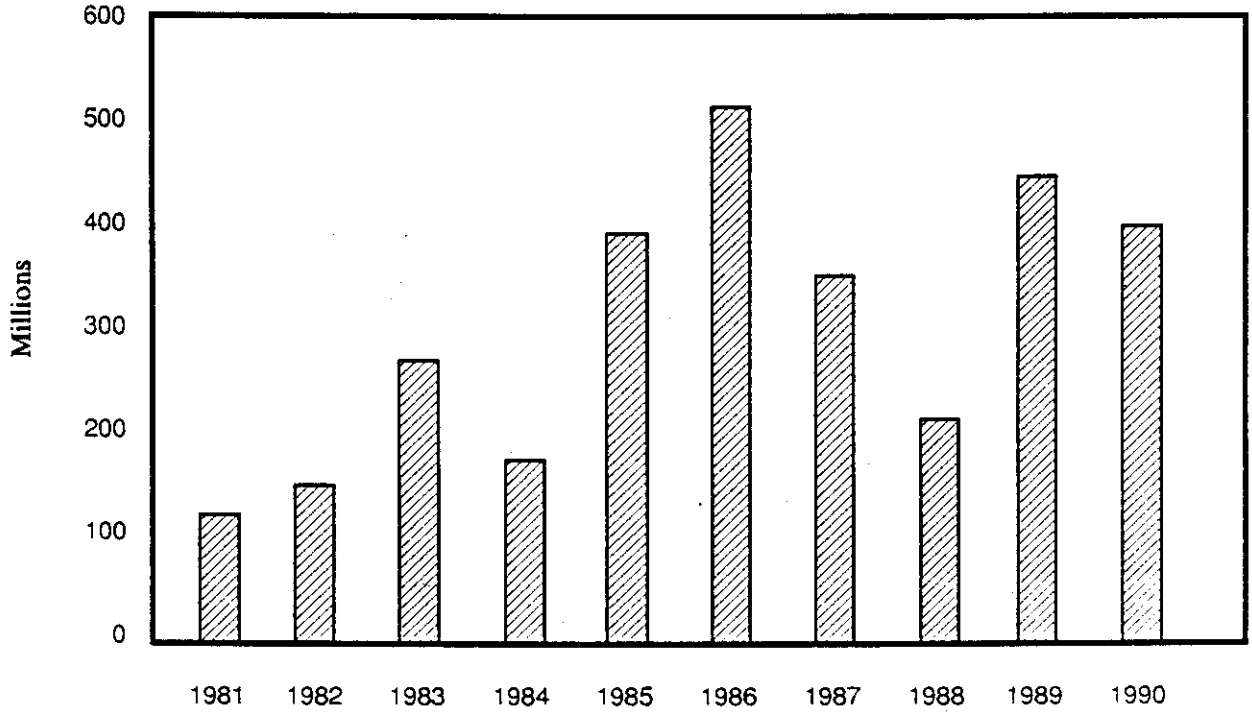
DISBURSEMENTS
10 Year Comparison



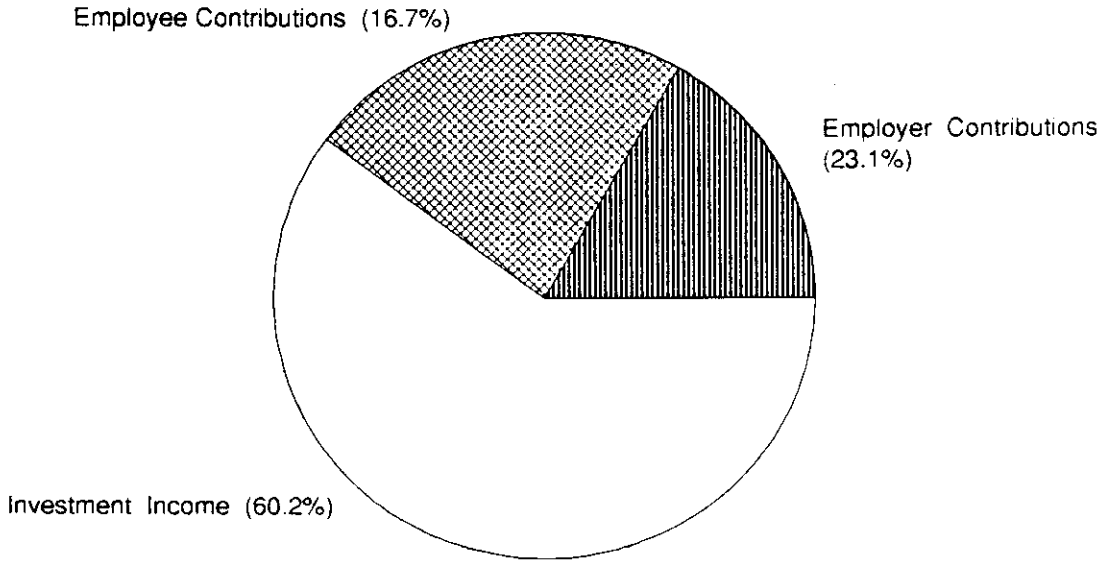
DISBURSEMENTS FOR THE YEAR ENDED
June 30, 1990



REVENUES
10 Year Comparison



INCOME FOR THE YEAR ENDED
June 30, 1990



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TEACHERS'
RETIREMENT SYSTEM

TEACHERS' RETIREMENT BOARD

Charles M. Arteaga, Chair
Term Expires: 1/31/93

Dorothy Wells, Vice Chair
Term Expires: 6/30/96

Garris "Bob" Covington
Term Expires: 1/31/91

Stephanie Winsor
Term Expires: 6/30/96

Roxy A. McDonagh
Term Expires: 1/31/92

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FINANCIAL SECTION

Coopers
&Lybrand

certified public accountants

Report of Independent Accountants

Division of Retirement and Benefits and
Members of the Alaska Teachers'
Retirement Board
State of Alaska
Teachers' Retirement System
Juneau, Alaska

We have audited the accompanying statements of net assets available for benefits of the State of Alaska Teachers' Retirement System as of June 30, 1990 and 1989, and the related statements of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the management of the State of Alaska, Department of Administration, Division of Retirement and Benefits. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits as of June 30, 1990 and 1989, and changes in net assets available for benefits for the years then ended, in conformity with generally accepted accounting principles.

The supplemental schedules of funding progress and revenues by source and expenses by type are not a required part of the basic financial statements of the State of Alaska Teachers' Retirement System but are required by the Governmental Accounting Standards Board. We have applied certain limited procedures which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit this information and express no opinion on it.

Coopers & Lybrand

Anchorage, Alaska
September 8, 1990

STATE OF ALASKA
TEACHERS' RETIREMENT SYSTEM

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS

June 30, 1990 and 1989

($000)

	1990	1989
Assets:		
Investments, at fair value:		
Short-term investments		$ 1,300
United States Government securities	$ 564,959	639,332
Corporate bonds, notes and debentures	234,265	169,248
Domestic equity fund	539,685	423,898
International equities	123,496	98,147
Real estate equity funds	91,676	88,738
Total investments	1,554,081	1,420,663
Loans and mortgages, at cost, net of allowance for loan losses of $5,170 in 1990 and $5,417 in 1989	82,134	88,235
Receivables:		
Contributions	10,065	7,207
Retirement incentive program	1,753	2,873
Accrued interest and dividends	17,032	17,465
Total receivables	28,850	27,545
Cash and cash equivalents	44,415	12,124
Total assets	1,709,480	1,548,567
Liability - accrued expenses	3,134	2,690
Net assets available for benefits	$1,706,346	$1,545,877

The accompanying notes are an integral part of the financial statements.

STATE OF ALASKA
TEACHERS' RETIREMENT SYSTEM

STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

for the years ended June 30, 1990 and 1989

($000)

	1990	1989
Additions:		
Investment income:		
Net appreciation in fair value of investments	$ 12,129	$ 65,243
Interest	90,196	81,294
Dividends	20,449	18,308
Net realized gains on sales	35,720	26,109
Total investment income before provision for losses on loans and mortgages	158,494	190,954
Provision for losses on loans and mortgages	247	(541)
Net investment income	158,741	190,413
Contributions:		
Employers	49,501	47,348
Employees	33,783	31,888
Retirement incentive program:		
Employer	4,169	
Employees	1,441	
Total contributions	88,894	79,236
Total additions	247,635	269,649
Deductions:		
Benefits paid:		
Retirement	71,134	65,328
Medical	9,713	8,073
Total benefits paid	80,847	73,401
Refunds to terminated employees	2,896	2,953
Administrative expenses	3,423	3,993
Total deductions	87,166	80,347
Net increase	160,469	189,302
Net assets available for benefits:		
Beginning of year	1,545,877	1,356,575
End of year	$1,706,346	$1,545,877

The accompanying notes are an integral part of the financial statements.

STATE OF ALASKA
TEACHERS' RETIREMENT SYSTEM

NOTES TO FINANCIAL STATEMENTS

1. Description of State of Alaska Teachers' Retirement System (Plan):

The following brief description of the Plan is provided for general information purposes only. Participants should refer to the Plan agreement for more complete information.

General

The Plan is the administrator of a cost-sharing multiple-employer public employee retirement system established and administered by the State of Alaska (State) to provide pension benefits for teachers and other eligible participants. Benefit and contribution provisions are established by State law and may be amended only by the State Legislature. The Plan is considered a part of the State financial reporting entity and is included in the State's financial reports as a pension trust fund. At June 30, 1990, the number of participating local government employers was:

School districts	54
Other	8
Total employers	62

Inclusion in the Plan is a condition of employment for permanent school district, University of Alaska and State Department of Education employees who meet the eligibility requirements for participation in the Plan. At June 30, 1989, Plan membership consisted of:

Retirees and beneficiaries currently receiving benefits and terminated employees entitled to future benefits	3,606
Current employees:	
Vested	4,787
Nonvested	3,740
	12,133

Continued

1. **Description of State of Alaska Teachers' Retirement System (Plan), Continued:**

Pension Benefits

General employees with eight or more paid-up years of membership credited service are entitled to annual pension benefits beginning at normal retirement age fifty-five, or early retirement at age fifty. The normal annual pension benefit is equal to 2% of the employee's highest three-year average base salary for each year of service. Minimum benefits for employees eligible for retirement are $25 per month for each year of credited service.

Married members must receive their benefits in the form of a joint and survivor annuity unless their spouses consent to another form of benefit.

Major medical benefits are provided without cost to all employees when they begin receiving benefits.

Death and Disability Benefits

If an active employee, first hired under the Plan before July 1, 1982, is participating in the supplemental contribution provision, dies and is survived by either a spouse or dependent child(ren), a spouse's pension or a survivor's allowance may be payable. The amount of the pension or allowance is determined by the employee's base salary.

If an active employee who is not participating in or eligible for coverage under the supplemental contribution provision, dies from occupational or nonoccupational causes, the spouse may receive a monthly pension from the Plan. When death is due to occupational causes and there is no surviving spouse, the employee's dependent child(ren) may receive a monthly pension until they are no longer dependent. The amount of the occupational death pension changes on the date the employee's normal retirement would have occurred if the employee had lived. The new benefit is based on the employee's average base salary at the time of his/her death and the credited service that would have accrued if the employee had lived and continued to work until normal retirement age.

If an employee with five or more paid-up years of membership service is not eligible for normal retirement benefits and becomes permanently disabled, the employee is entitled to a monthly benefit. The annual disability benefit is equal to 50% of the base salary at time of disablement plus an additional 10% of his/her base salary for each dependent child up to a maximum of four children.

Continued

1. **Description of State of Alaska Teachers' Retirement System (Plan), Continued:**

Effect of Plan Termination

Should the Plan terminate at some future time, its net assets generally will not be available on a pro rata basis to provide participants' benefits. Whether a particular participant's accumulated Plan benefits will be paid depends on the priority of those benefits at that time. Some benefits may be fully or partially provided for by the then existing assets while other benefits may not be provided for at all.

2. **Summary of Significant Accounting Policies:**

Basis of Accounting

The Plan's financial statements are prepared using the accrual basis of accounting.

Valuation of Investments

Investments, other than real estate equity funds and loans and mortgages, are carried at market value to reflect the asset values of the Plan as determined by the last quoted sales price at June 30, 1990 and 1989.

Real estate equity funds are stated at estimated market value as determined by the independent management of the investment accounts. These investments do not have a readily available market and generally represent long-term investments.

Loans and mortgages are serviced by the institution from which the loan is purchased. The policy of the Plan is to hold these investments until maturity and, accordingly, the investments are stated at cost, less an allowance for estimated loan losses. Loans and mortgages include approximately $10,940,300 and $11,240,000 for 1990 and 1989, respectively, of other real estate owned. Other real estate owned represents properties on which the Plan has foreclosed and is holding with the intent to resell.

Continued

2. Summary of Significant Accounting Policies, Continued:

Valuation of Investments, Continued

The investment activity of all common stocks was consolidated October 1, 1987 with the common stocks of other State funds to form a domestic equity fund. The activity from October 1, 1987 and the June 30, 1990 and 1989 balances of this domestic equity fund are accounted for on a unit-accounting basis. All income and realized and unrealized gains are allocated monthly to each participating fund on a pro rata ownership basis. All income earned is included in dividend income. At June 30, 1990 and 1989, the Plan's investment in the domestic equity fund is comprised of the following ($000) :

	1990	1989
Domestic equities	$ 501,414	$ 375,119
Interest and dividends receivable	1,504	1,204
Cash and cash equivalents	36,767	47,575
Total	$ 539,685	$ 423,898

International equities at June 30, 1990 and 1989 are comprised of the following ($000):

Foreign equities	$ 117,153	$ 89,462
Cash and cash equivalents	6,343	8,685
	$ 123,496	$ 98,147

Cash and cash equivalents at June 30, 1990 and 1989 are comprised of the following:

Interest bearing deposits	$ 782	$ 524
Investment maturities in transit	32,000	
Repurchase agreements	11,633	11,600
	$ 44,415	$ 12,124

State of Alaska treasury investment policy requires that securities underlying repurchase agreements must have a minimum market value of 102% of the cost of the repurchase agreement.

Continued

2. Summary of Significant Accounting Policies, Continued:

Valuation of Investments, Continued

The Commissioner of Revenue has the statutory authority to invest the monies of the Plan. This authority is delegated to investment officers of the Treasury Division of the Department of Revenue. Alaska Statute provides for the investment in United States Treasury or agency securities; corporate debt securities; preferred and common stock; commercial paper; securities of foreign governments, agencies and corporations; foreign time deposits; gold bullion; futures contracts for the purpose of hedging; real estate investment trusts; deposits within Alaska savings and loans and mutual savings banks; deposits with state and national banks in Alaska; guaranteed loans; notes collateralized by mortgages; certificates of deposit and banker's acceptances.

To provide an indication of the level of credit risk assumed by the Plan at June 30, 1990, the Plan's deposits and investments are categorized as follows:

Deposits

Category 1 - Insured or collateralized with securities held by the State or its custodian in the State's name.

Category 2 - Collateralized with securities held by the pledging financial institution's trust department or custodian in the State's name.

Category 3 - Uncollateralized.

Investments

Category 1 - Insured or registered for which the securities are held by the State or its custodian in the State' s name.

Category 2 - Uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent in the State's name.

Category 3 - Uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent but not in the State' s name.

Continued

2. Summary of Significant Accounting Policies, Continued:

Valuation of Investments, Continued

Investments, Continued

	Category ($000) #1	#2	#3	Market Value (Carrying Value)
Deposits - cash	$ 44,415			$ 44,415
Investments:				
United State Government securities	564,959			564,959
Corporate bonds, notes, and debentures	234,265			234,265
Domestic equity fund	539,685			539,685
International equities		$123,496		123,496
Real estate equity funds	91,676			91,676
	$1,475,000	$123,496	$-0-	$1,598,496

During 1990 and 1989, the Plan's investments (including investments bought, sold, as well as held during the year) appreciated (depreciated) in value as follows ($000) :

	1990	1989
United States Government securities	$ (16,266)	$ 29,544
Corporate bonds, notes and debentures	(5,118)	11,272
Domestic equity fund	28,534	19,789
International equities	5,598	1,566
Real estate equity funds	(619)	3,072
	$ 12,129	$ 65,243

The cost, market and carrying value of the Plan's investments as of June 30, 1990 and 1989 are as follows:

Continued

2. Summary of Significant Accounting Policies, Continued:

Valuation of Investments, Continued

	1990		
	Cost	Market	Carrying Value
United States Government securities	$ 524,489	$ 564,959	$ 564,959
Corporate bonds, notes and debentures	230,631	234,265	234,265
Domestic equity fund	479,245	539,685	539,685
International equities	113,797	123,496	123,496
Real estate equity funds	82,897	91,676	91,676
Loans and mortgages, net of allowance for loan losses of $5,170	82,134	85,140	82,134
	$1,513,193	$1,639,221	$1,636,215

	1989		
	Cost	Market	Carrying Value
Short-term investments	$ 1,300	$ 1,300	$ 1,300
United States Government securities	582,596	639,332	639,332
Corporate bonds, notes and debentures	160,496	169,248	169,248
Domestic equity fund	391,992	423,898	423,898
International equities	94,046	98,147	98,147
Real estate equity funds	79,340	88,738	88,738
Loans and mortgages, net of allowance for loan losses of $5,417	88,235	93,826	88,235
	$1,398,005	$1,514,489	$1,508,898

Continued

2. Summary of Significant Accounting Policies, Continued:

Contributions Receivable

Contributions from employees and employers for service through June 30 are accrued. These contributions are considered fully collectible and, accordingly, no allowance for uncollectible receivables is reflected in the financial statements.

Accrued Interest and Dividends

Accrued interest and dividends represent amounts earned but not yet received as of June 30. These amounts are considered fully collectible and, accordingly, no allowance for uncollectible receivables is reflected in the financial statements. Accrued interest on loans and mortgages is not recorded until received.

Reclassifications

Certain items in the 1989 financial statements have been reclassified to conform to the 1990 presentation.

3. Funding Status and Progress:

The amount shown below as "pension benefit obligation", which is the actuarial present value of credited projected benefits, is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date. This measure is intended to help users assess the Plan's funding status on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make comparisons among plans. The measure is independent of the actuarial funding method used to determine contributions to the Plan, discussed in Note 4 below.

Continued

3. Funding Status and Progress, Continued:

The pension benefit obligation is determined by William M. Mercer, Incorporated and is that amount that results from applying actuarial assumptions to adjust the accumulated benefits to reflect the time value of money (through discounts for interest) and the probability of payment (by means of decrements such as for death, disability, withdrawal, or retirement) between the valuation date and the expected date of payment. The significant actuarial assumptions used in the valuations as of June 30, 1989 are as follows:

a. Actuarial cost method - projected unit credit, unfunded accrued benefit liability amortized over twenty-five years, funding surplus amortized over five years.

b. Mortality basis - 1984 Unisex Pension Mortality Table set back one and one-half years.

c. Retirement age - retirement rates based on actual experience.

d. Interest rate - 9% per annum, compounded annually, net of investment expenses.

e. Health cost inflation - 9% per annum.

f. Salary scale - increase of 6.5% for the first five years of employment and 5.5% per year thereafter.

g. Cost of living allowance (domicile in Alaska) - 54% of those receiving benefits will be eligible to receive the cost of living allowance.

h. Contribution refunds - 100% of those terminating after age thirty-five with eight or more years of service will leave their contributions and thereby retain their deferred vested benefit. All others who terminate are assumed to have their contributions refunded.

i. Asset valuation - five-year average ratio between market and book values of the Plan's assets except that fixed income investments are carried at book value. Valuation assets cannot be outside of the range of book and actuarial values.

Continued

3. Funding Status and Progress, Continued:

Turnover and disability assumptions are based upon actual historical occurrence rates of the Plan. The foregoing actuarial assumptions are based on the presumption that the Plan will continue. Were the Plan to terminate, different actuarial assumptions and other factors might be applicable in determining the actuarial present value of accumulated benefits.

At June 30, 1989, the assets in excess of pension benefit obligation were $11.7 million, as follows ($ in millions) :

Net assets available for benefits as of June 30, 1989, at market, as more fully described in Note 2	$ 1,545.9
Pension benefit obligation:	
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	779.3
Current employees:	
Accumulated employee contributions including allocated investment income	253.4
Employer-financed vested	436.4
Employer-financed nonvested	88.5
Total pension benefit obligation as of June 30, 1989	1,557.6
Unfunded pension benefit obligation as of June 30, 1989	$ 11.7

4. Contributions:

Employees' Contributions

Employees contribute 7% of their base salary as required by statute. Qualified members may make an additional contribution of 1% of their salary under the supplemental contribution provision. Contributions are collected by employers and remitted to the Plan. Present employees' accumulated contributions at June 30, 1990 were $248,529,000. Employees' contributions earn interest at the rate of 4.5% per annum, compounded annually.

Continued

4. Contributions, Continued:

Employers' Contributions

The Plan's funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate sufficient assets to pay benefits when due. Employer contribution rates are level percentages of payroll and are determined using the projected unit credit actuarial funding method. The Plan also uses the level percentage of payroll method to amortize the unfunded liability over a twenty-five year period. Funding surpluses are amortized over five years.

Contributions made in accordance with actuarially determined contribution requirements determined through actuarial valuations consist of the following ($000) :

	1990		1989	
	Contributions ($000)	Percentage of Coverage Payroll	Contributons ($000)	Percentage of Coverage Payroll
Employers	$ 49,501	11%	$ 47,348	12%
Employees	33,783	7	31,888	7
	$ 83,284	18%	$ 79,236	19%

	1990	1989
Normal cost	$75,031	$71,384
Amortization of unfunded actuarial accrued liability	8,253	7,852
	$83,284	$79,236

Continued

4. Contributions, Continued:

Employers' Contributions, Continued

Actuarial valuations for 1990 and 1989 were performed as of June 30, 1989 and 1988, respectively.

Significant actuarial assumptions used to compute contribution requirements are the same as those used to compute the standardized measure of the pension obligation discussed in Note 3.

5. Retirement Incentive Program:

Legislation passed in May 1986 established a retirement incentive program designed to encourage eligible employees to voluntarily retire in order to reduce personal services costs. The program was available to eligible University of Alaska employees from October 1, 1986 to September 30, 1987, and all other employees until June 30, 1987.

Legislation was passed in June 1989 and amended effective April 1, 1990 establishing a second retirement incentive program. The second program was available to state employees from September 30, 1989 through March 31, 1990, and all other employees from June 30, 1989 through December 31, 1989.

The retirement incentive program receivable represents the reimbursement due from employers participating in the programs and is due in minimum equal annual installments so that the entire balance is paid within three years after the end of the fiscal year in which employees retired. The amount of reimbursement is the actuarial equivalent of the difference between the benefits the employee receives after the addition of the retirement incentive under the program and the amount the employee would have received without the incentive, less any amount the employee was indebted as a result of retiring under the program. Employees were indebted to the Plan 21% of their annual compensation for the school year in which they terminated employment to participate in the programs. Any outstanding indebtedness at the time an employee was appointed to retirement resulted in an actuarial adjustment of his/her benefit.

The effect of the 1986 retirement incentive program on the pension benefit obligation was fully accounted for in the June 30, 1988 actuarial valuation. The effect of the 1989 program on the pension benefit obligation will be accounted for in the June 30, 1990 and 1991 actuarial valuations as the eligible employees actually retire.

6. Ten-year Historical Trend Information:

Ten-year historical trend information (where available) designed to provide information about the Plan's progress made in accumulating sufficient assets to pay benefits when due is presented on the accompanying supplemental schedules of analysis of funding progress and revenues by source and expenses by type.

7. Contingent Liabilities:

The Alaska Public Employees' Retirement System (PERS) was a party to an action contesting application of the early retirement factors adopted by PERS in the calculation of the pension benefit obligation. The Alaska Supreme Court ruled In 1987 that the PERS application of the early retirement factors was incorrect. While the suit was not directed at the Alaska Teachers' Retirement System (TRS), its outcome indirectly affected the TRS application of actuarial retirement factors. The effect of the suit on the pension benefit obligation or the amount payable to retirees as a result of not using more favorable actuarial retirement factors has not been determined and, in the opinion of the TRS actuary and officials of the Division of Retirement and Benefits, will not significantly affect the Plan's financial status.

8. Subsequent Event:

During the two month period ended August 31, 1990, the market value of the domestic equity fund declined approximately 10% and the market value of international equities declined approximately 6%.

STATE OF ALASKA
TEACHERS' RETIREMENT SYSTEM

REQUIRED SUPPLEMENTARY INFORMATION

ANALYSIS OF FUNDING PROGRESS

(Unaudited)

($000)

Year Ended June 30,	Net Assets Available	Pension Benefit Obligation	Percentage Funded	Unfunded (Assets in Excess of) Pension Benefit Obligation	Annual Covered Payroll	Unfunded (Assets in Excess of) Pension Benefit Obligation as of Percentage of Covered Payroll
1985	$ 866,333	$1,042,551	83.1%	$176,218	$358,110	49.2%
1986	1,141,650	1,115,773	102.3	(25,877)	392,136	(6.6)
1987	1,303,464	1,210,909	107.6	(92,555)	348,606	(26.6)
1988	1,356,575	1,347,859	100.6	8,716	361,310	2.4
1989	1,545,877	1,557,643	99.2	11,766	431,445	2.7

Analysis of the dollar amounts of net assets available for benefits, pension benefit obligation, and unfunded pension benefit obligation in isolation can be misleading. Expressing the net assets available for benefits as a percentage of the pension benefit obligation provides one indication of the Plan's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the plan is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the plan. Trends in unfunded pension benefit obligation and annual covered payroll are both affected by inflation. Expressing the unfunded pension benefit obligation as a percentage of annual covered payroll approximately adjusts for the effects of inflation and alds analysis of the Plan's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the plan.

See notes to financial statements.

STATE OF ALASKA
TEACHERS' RETIREMENT SYSTEM

REQUIRED SUPPLEMENTARY INFORMATION

REVENUES BY SOURCE AND EXPENSES BY TYPE

(Unaudited)

($000)

Year Ended June 30,	Revenues By Sources: Employee Contributions	Employer Contributions	Investment Income	Unrealized Appreciation (Depreciation) In MarketValue	Total	Employer Contribution as of Percentage of Annual Covered Payroll
1980	$16,651	$31,243	$ 32,274	$ (6,494)	$ 73,674	14.4%
1981	18,853	37,654	39,804	(19,017)	77,294	16.2
1982	21,735	50,857	31,574	(6,701)	97,465	18.7
1983	24,546	54,718	62,846	36,218	178,328	18.6
1984	27,257	63,316	61,559	(48,194)	103,938	19.4
1985	29,176	68,826	74,171	78,418	250,591	19.2
1986	32,039	69,276	119,173	103,643	324,131	17.7
1987	34,159	58,177	143,692	(15,677)	220,351	16.7
1988	33,104	69,363	100,239	(75,566)	127,140	19.2
1989	31,888	47,348	125,170	65,243	269,649	11.0

Year Ended June 30,	Expenses By Type: Retirement Benefits	Medical Benefits	Refunds to Terminated Enployees	Administrative Expenses	Total
1980	$15,548	$ 914	$3,088	$ 853	$20,403
1981	18,414	1,590	3,172	1,178	24,354
1982	21,198	1,683	2,974	1,333	27,188
1983	24,053	2,307	2,509	1,606	30,475
1984	27,792	3,257	3,094	1,605	35,748
1985	33,360	4,393	3,126	2,951	43,830
1986	38,476	4,424	3,311	2,603	48,814
1987	46,183	4,613	4,239	3,502	58,537
1988	60,939	5,040	3,798	4,252	74,029
1989	65,328	8,073	2,953	3,993	80,347

Contributions were made in accordance with actuarially determined contribution requirements.

See notes to financial statements.

STATE OF ALASKA
TEACHERS' RETIREMENT SYSTEM

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

(Unaudited)

All significant accounting policies, benefit provisions and actuarial assumptions are the same for the required supplementary information and the financial statements except as follows:

The Plan's actuarial funding method for the years ended June 30, 1978 through June 30, 1984 was attained age normal. Effective July 1, 1984, the Plan adopted the projected unit credit actuarial funding method.

Effective July 1, 1980, the Plan adopted new actuarial assumptions. The assumed rate of interest was increased from 6% to 8% per year. The salary scale assumption was changed from 6% per year until age thirty-nine and 5% per year thereafter to 8% for the first five years of employment and 7% thereafter. Health care cost inflation was set at 8%. Turnover and disability assumptions were revised based upon actual experience In 1980 through 1981.

Effective July 1, 1986, the Plan adopted new actuarial assumptions. Actuarial funding surpluses are amortized over five years rather than twenty-five years. The assumed rate of interest was increased from 8% to 9% per year. The salary scale assumption was lowered to 6.5% per year for the first five years of employment and 5.5% per year thereafter, down from 8% and 7%, respectively. Health care cost inflation was increased to 9% rather than 8%. Turnover and disability assumptions were revised based on actual experience in 1981 through 1985.

The amortization period for the unfunded accrued benefit liability was changed from forty years to thirty years effective July 1, 1978 and from thirty years to twenty-five years effective July 1, 1981.

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ACTUARIAL SECTION

HIGHLIGHTS

This report has been prepared by William M. Mercer Meidinger Hansen, Incorporated to:

(1) present the results of a valuation of the Alaska Teachers' Retirement System as of June 30, 1989;

(2) review experience under the plan for the year ended June 30, 1989;

(3) determine the appropriate contribution rate for the State and each school district in the System;

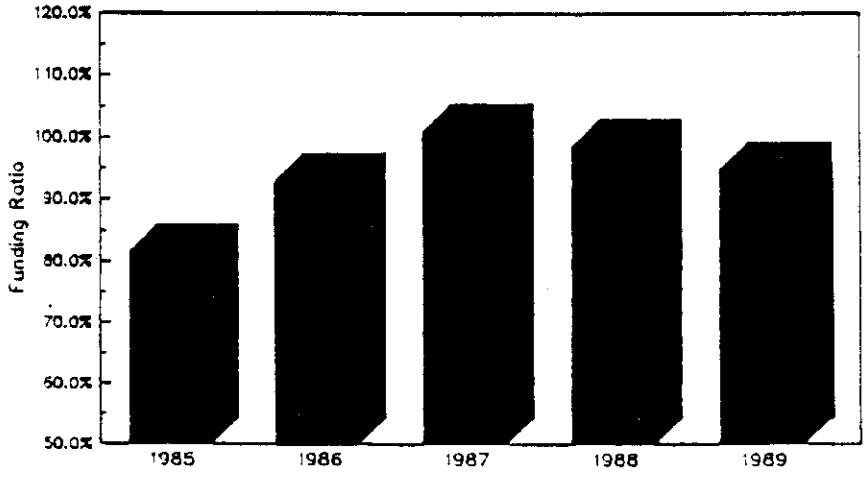
(4) provide reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

The report is divided into two sections. Section 1 contains the results of the valuation. It includes the experience of the plan during the 1988-89 plan year, the current annual costs, and reporting and disclosure information.

Section 2 describes the basis of the valuation. It summarizes the plan provisions, provides information relating to the plan participants, and describes the funding methods and actuarial assumptions used in determining liabilities and costs.

The principle results are as follows:

Funding Status as of June 30:	1988	1989
(a) Valuation Assets*	$1,331,905	$1,480,389
(b) Accrued Liability*	1,347,859	1,557,643
(c) Funding Ratio, (a) / (b)	98.8%	95.0%



* In thousands.

William M. Mercer, Incorporated

Employer Contribution Rates for Fiscal Year	1991	1992
(a) Normal Cost Rate	11.86%	13.26%
(b) Past Service Rate	.41%	1.90%
(c) Total Contribution Rate	12.27%	15.16%
(d) Three-year Average Rate	10.54%	11.87%

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions, in conjunction with employee data provided to us by the plan sponsor and financial information provided by the audited report from Coopers & Lybrand, to determine a sound value for the plan liabilities. We believe that this value, and the method suggested for funding it, are in full compliance with the Governmental Accounting Standards Board, the Internal Revenue Code, and all applicable regulations.

Respectfully submitted,

Brian R. McGee, FSA
Principal

Peter L. Godfrey, FIA, ASA, EA
Consulting Actuary

BRM/PLG/js

April 26, 1990

ANALYSIS OF THE VALUATION

As can be seen from the Highlights section of this report, the funding ratio as of June 30, 1989 has decreased from 98.8% last year to 95.0%, a 3.8% reduction. The employer contribution rate has increased from 12.27% of payroll to 15.16%, an increase of 2.89%. The reasons for the change in the funded status and contribution rate are explained below.

1. Retiree Medical Insurance

During the year ended June 30, 1989, the System sustained an actuarial loss of $75,955,000 due to the continuing large increases in retiree medical premiums.

For many years, we have commented on the substantial increases in retiree medical insurance premiums. The following table summarizes the monthly premium, per benefit recipient, since retiree medical became a benefit of the TRS.

Fiscal Year	Monthly Premium Per Retiree For Health Coverage	Annual Percentage Increase	Average Annual Increase Since 1978
1977	$ 34.75	--	--
1978	57.64	66%	--
1979	69.10	20%	20%
1980	64.70	- 6%	6%
1981	96.34	49%	19%
1982	96.34	0%	14%
1983	115.61	20%	15%
1984	156.07	35%	18%
1985	191.85	24%	19%
1986	168.25	-12%	14%
1987	165.00	- 2%	12%
1988	140.25	-15%	9%
1989	211.22	51%	13%
1990	252.83	20%	13%
1991	243.98	-4%	12%

As you can see from the above table, the monthly retiree medical premium increased to $252.83 during the year from $211.22, an increase of 20%. The premium for the 1991 fiscal year decreased to $243.98, making the average annual increase over the two-year period approximately 7.5%. However, we need to examine the pre- and post-65 rates to understand the full impact of the loss from retiree medical costs.

The State has seen a dramatic shift to post-65 rates. While the pre-65 premium rate increased 24%, the post-65 rate increased 65% over last year. This, combined with more retirees and higher average ages, caused an overall 44% increase in the liabilities associated with medical benefits.

The effect on the employer contribution rate of this increase in retiree medical premiums has been an increase of 3.06% of payroll.

2. Investment Performance

The System enjoyed significant actuarial gains from the investment performance of the Trust funds during the year. The rate of return based upon market values was 14.04% and the return based on valuation assets (a five-year smoothing of actuarial values) was 11.26%. As the assumed rate of return was 9%, the resulting actuarial gain was $31,073,000 which had the effect of reducing the employer contribution rate by 0.76% of payroll.

3. Salary Increases

Once again, salary increases during the year were less than anticipated in the valuation assumptions. Salary experience resulted in an actuarial gain of $18,146,000 which generated a reduction in the employer contribution rate of 0.45% of payroll.

4. Employee Data

Section 2.2 provides statistics on active and inactive participants. The number of active participants increased from 8,218 at June 30, 1988 to 8,527 at June 30, 1989. Furthermore, the average age of active participants increased from 41.34 to 41.82 and average credited service increased from 10.46 to 10.61.

The number of retirees and beneficiaries also increased from 2,972 to 3,098 and their average age increased from 61.41 to 61.85. There was a large increase in the number of vested terminated participants from 408 to 508. Their average age also increased significantly from 44.26 to 45.11.

Legislation passed in June, 1989 established a second Retirement Incentive Program (R.I.P.) which will be available to participants from July 1, 1989 to December 31, 1989. Thus, the R.I.P. had no new effect on the results of this valuation.

The overall effect of these participant data changes was an actuarial loss of $26,501,000 resulting in an increase in the employer contribution rate of 0.65% of payroll.

5. Contribution Rates

Following the adoption of a three-year average contribution rate last year, we have developed the average rate applicable to the 1992 fiscal year. As shown in the Highlights section of this report, this rate is 11.87% of TRS payroll. Section 1.3(b) shows the effect of adopting the three-year average rate compared with the calculated rate for each of the last five years.

Asset Smoothing

In the past, the valuation of assets has been based on a three-year average ratio of book and actuarial values. This creates a smoothing of the investment gains and losses. Based on discussions with the Department of Revenue, the equity portion of the assets is growing, which further exposes the System to fluctuations in market returns. In response to this, we analyzed several asset smoothing techniques to determine the one most suitable to the System. Based on this analysis, we have extended the average ratio to five years. Due to a constraint that the valuation assets be within the range of book and actuarial values, this change does not affect valuation assets this year. Over time, we expect this will reduce wide swings in the contribution rates due to market volatility.

Summary

The following table summarizes the sources of change in the employer contribution rate:

(1) Last year's employer contribution rate	12.27%
(2) Increase due to retiree medical insurance	3.06%
(3) Decrease due to investment performance	(0.76%)
(4) Decrease due to salary increases	(0.45%)
(5) Increase due to demographic experience	0.65%
(6) Impact of all other factors	0.39%
(7) Employer contribution rate this year	15.16%

In summary, the total actuarial loss during the year was $67,567,000. This may be expressed as an actuarial loss from retiree health insurance experience of $75,955,000 and an actuarial gain from all other sources, including those described above, of $8,388,000. Despite this overall loss during the year, the System remains well funded at 95% of accrued liabilities.

SUMMARY OF THE ALASKA TEACHERS' RETIREMENT SYSTEM

(1) Effective Date

June 30, 1955, as amended through June 30, 1989.

(2) Administration of Plan

The Commissioner of Administration is responsible for administration of the System; the Alaska Teachers' Retirement Board adopts rules and regulations to carry out provisions of the Act; and the Commissioner of Revenue invests the funds. The Attorney General is the attorney for the System and represents it in legal proceedings.

(3) Membership

Membership in the Alaska TRS is compulsory for the following employees:

- certificated full-time and part-time elementary and secondary teachers, certificated school nurses, and certificated employees in positions requiring teaching certificates;
- the Commissioner of the Alaska Department of Education and certificated supervisors employed by the Department of Education in permanent positions requiring teaching certificates;
- University of Alaska full-time and part-time teachers, and full-time administrative employees in positions requiring academic standing if approved by the TRS administrator (employees who elect to participate in the University of Alaska's retirement program are excluded);
- certain full-time or part-time teachers of Alaska Native language or culture who have elected to be covered under the TRS;
- members on approved sabbatical leave under AS 14.20.310; and
- certain State legislators who have elected to be covered under the TRS.

TRS members who receive TRS disability benefits are also covered under the TRS and earn membership service while they are on disability.

(4) Credited Service

A year of membership service is defined to be the same as a school term which is currently a minimum of 172 days, and fractional service credit is on a daily rate basis. Credit is granted for all Alaskan public school service. Credit is granted for accrued, unused sick leave as reflected by the records of the last employer once a member has been on retirement an equal amount of time, meets eligibility requirements and has completed an application for the credit.

(5) Contributions by Teachers

Effective July 1, 1970, each teacher shall contribute 7% of base salary earned from July 1 to the following June 30.

(6) Voluntary Supplemental Contributions

If a teacher who first joined the system before July 1, 1982 wishes to make his or her spouse or minor children eligible for a spouse's pension and/or survivor's allowance, the teacher may elect to make supplemental contributions of an additional 1% of base salary commencing not later than 90 days after marriage, or the birth or adoption of a child, or upon re-entry into the system provided there was at least a twelve (12) month break in service.

(7) Service That May Be Claimed.

TRS members may claim TRS credit for the following service:

- **Outside teaching service.** Members may claim up to ten years of outside service for their employment in out-of-state schools or Alaska private schools. Outside service includes employment as:

  (1) certificated full-time elementary and secondary teachers and certificated full-time employees in positions which require teaching certificates as a condition of employment with out-of-state public schools and approved or accredited nonpublic schools either inside or outside of the United States supported by U.S. funds;

  (2) full-time employees in out-of-state institutions of higher learning requiring academic standing and accreditation; or

  (3) full-time teachers in approved or accredited nonpublic institutions of higher learning in Alaska.

  Contributions are required for service which is claimed. For teachers first hired after June 30, 1978, the full actuarial cost of providing benefits for the service will be borne by the teacher. Credit for fractional years of outside service is not allowed.

- **Military service.** Members may claim up to five years of military service; however, the combined total of outside and military service may not exceed ten years, unless entry into the military is immediately preceded by TRS service and following discharge is continued by TRS service within one year. Contributions are required for service which is claimed. Credit for fractional years of military service is allowed.

- **Bureau of Indian Affairs (BIA) service in Alaska.** Members may claim their Alaska BIA service as professional educators and certificated full-time teachers in positions requiring teaching certificates. Contributions are required for service which is claimed. Credit for fractional years of BIA service is allowed.

- **Retroactive service.** Members may claim their earlier Alaskan service that was not creditable at the time it occurred but later became creditable because of legislative change. Retroactive contributions are required for earlier service; however, contributions are not required for service that was rendered before July 1, 1955.

- **Unused sick leave.** Members may claim their unused sick leave after they retire. Contributions are not required.

- **Leave of absence without pay.** Members may claim their employer-approved leave of absence without pay. Contributions are required.

(8) Employers' and State's Contributions

The employer contributes an amount required, in addition to member contributions, to finance the benefits of the System.

(9) Rate of Interest

The amount deposited in a member account will be credited with interest at the rate established for a school year at the end of such school year. Effective June 30, 1974, the interest rate was increased to 4-1/2%.

(10) Withdrawal of Mandatory Contributions

If a member terminates TRS employment, the balance of the member's contribution account (mandatory contributions, indebtedness payments and interest earned on the account) may be withdrawn by the member or may be attached to satisfy claims made under Alaska Statute 09.38.065.

(11) Reinstatement of Contributions

If mandatory contributions are withdrawn, the member must return to TRS employment in order to reinstate the refunded service. Upon reemployment, the member will be indebted to the TRS fund for the amount of the refund. Mandatory contributions that are attached to satisfy claims under Alaska Statute 09.38.065 may be reinstated at any time; the member is not required to return to TRS employment. The indebtedness will accrue interest until it is paid in full or the member retires, whichever occurs first.

(12) Normal Retirement Eligibility

Meeting the requirement of either (a) or (b) below:

(a) Upon attaining age 55 and meeting one of the following service requirements:

(1) Eight years of fully-paid membership service, or

(2) 15 years of fully-paid creditable service, the last five of which have been membership service; (if hired after June 30, 1975 a new member needs eight years of fully-paid membership service); or

(3) Five years of fully-paid membership service and three years of fully-paid Alaska B.I.A. service;

or;

(b) At any age after meeting one of the following service requirements:

(1) 25 years of fully-paid creditable service, the last five of which are membership service; or

(2) 20 years of fully-paid membership service; or

(3) 20 years of fully-paid combined membership service and Alaska B.I.A. service, the last five of which are membership service.

(4) 20 part-time years of fully-paid membership service (at least one-half year each).

A retired teacher who has been receiving a disability retirement benefit shall be eligible for a service retirement benefit upon satisfying normal retirement eligibility.

(13) Early Retirement Eligibility

Upon attaining age 50 and meeting one of the following service requirements:

(1) Eight years of fully-paid membership service, or

(2) 15 years of fully-paid creditable service, the last five of which have been membership service; (after June 30, 1975 a new member needs eight years of fully-paid membership service); or

(3) Five years of fully-paid membership service and three years of fully-paid Alaska B.I.A. service.

(14) Computation of Average Base Salary

A teacher's average base salary is determined by averaging the teacher's highest base salary which the teacher received for any three years of membership service during which the teacher received compensation for at least two-thirds of each school year.

(15) Normal Retirement Benefit

The normal retirement benefit is 2% of the teacher's Average Base Salary multiplied by the total number of years of creditable service, subject to a minimum benefit of $25 per month for each year of creditable service.

(16) Early Retirement Benefit

A teacher who meets the service requirements for normal retirement, but not the age requirements, may elect to have reduced payments commence as early as age 50. The reduced Early Retirement Benefit is equal to the actuarial equivalent of the normal retirement benefit.

(17) Indebtedness Owing At Retirement

If on the date of appointment to retirement, a teacher has not paid the full amount of his indebtedness including interest to the Retirement Fund, the retirement benefit will be reduced for life by an amount equal to the actuarial equivalent of the outstanding indebtedness at the time of retirement.

(18) Re-employment of a Retired Teacher

If a retired teacher is reemployed in a position covered under the System, the retirement benefit will be suspended during the period of reemployment.

During such period of reemployment, retirement contributions are mandatory.

(19) Disability Retirement Benefits

A disability retirement benefit may be paid if a teacher has become permanently disabled before 55 and has at least five years of fully-paid membership service.

The benefit will be equal to 50% of the disabled teacher's base salary immediately prior to becoming disabled. This benefit will be increased by 10% of the teacher's base salary for each minor child up to a maximum of 40%.

When the disabled teacher becomes eligible for normal retirement, the disability benefit will automatically terminate. A normal retirement benefit will be computed as if the teacher had been in membership service during the period of disability, and a service retirement will be granted.

(20) Cost-of-Living Allowance

An eligible retired teacher who remains in Alaska is entitled to receive an additional cost-of-living allowance equal to 10% of the base retirement benefit.

(21) Post-Retirement Pension Adjustment

When the administrator determines that the cost of living has increased and that the financial condition of the retirement fund permits, all retirement benefits may be increased. The amount of the increase shall be not more than the lesser of 4% compounded for each year of retirement, or the cost-of-living increase since the date of retirement, reduced by prior Post-Retirement Pension Adjustments.

(22) Non-Occupational and Occupational Death Benefit

Upon a non-occupational death of a member who has made no supplemental contributions or who made supplemental contributions for less than one year and has completed less than one year of membership service, a lump-sum benefit shall be paid to the designated beneficiary. The lump-sum benefit is the teacher's accumulated member contribution account. If the teacher is in active service at the time of death after completing at least one year of membership service but before becoming a vested member, an additional death benefit equal to $1,000 plus $100 for each year of membership service (the total not to exceed $3,000), plus $500 if the teacher is survived by one or more minor children is also payable.

Upon a nonoccupational death of a vested member or deferred vested member who has not made the required supplemental contributions, the surviving spouse may elect to receive the benefits described in the previous paragraph or a 50% joint and survivor option based on the member's average base salary and credited service to the date of death.

Upon an occupational death of a member who has not made the required supplemental contributions, a monthly survivor's pension equal to 40% of the base salary at the time of death or disability, if earlier, may be payable. At the member's Normal Retirement Date, the benefit converts to a Normal Retirement benefit based on the member's average base salary at date of disability or death and credited service, including period from date of disability or death to Normal Retirement Date.

If the teacher has received a retirement benefit prior to his death, payment shall be his accumulated contributions, plus interest, minus all benefits paid. However, if the teacher elected one of the joint and survivor options (50%, 66-2/3% or 75%) at retirement, an eligible spouse would receive a continuing monthly benefit for the rest of his or her life.

(23) Survivor's Allowance

If a teacher has made supplemental contributions for at least one year and dies while in membership service, or while receiving a disability benefit, or if a teacher has made supplemental contributions for at least five years and dies while on retirement or in deferred retirement status, and is survived by one or more minor children, his surviving spouse and/or minor children are entitled to the survivor's allowance. The amount of the benefit is 35% of the teacher's base salary immediately prior to his death or becoming disabled for his spouse and 10% for each minor child up to a maximum of 40%. The survivor's allowance commences the month following the member's death. When there is no longer an eligible minor child, this allowance ceases and a Spouse's Pension becomes payable.

(24) Spouse's Pension

If a teacher has made supplemental contributions for at least one year and dies while in membership service, or while receiving a disability benefit, or if a teacher has made supplemental contributions for at least five years and dies while on retirement or in deferred retirement status, the surviving spouse is entitled to receive the Spouse's Pension. The amount of the benefit is 50% of the service retirement benefit that the deceased teacher was receiving or would have received. The Spouse's Pension commences the month following the member's death or cessation of the survivor's allowance. The payment ceases when the spouse dies.

PARTICIPANT CENSUS INFORMATION AS OF JUNE 30

	1985	1986	1987	1988	1989
Active Members					
(1) Number	8,684	8,824	7,797	8,218	8,527
(2) Number Vested	N/A	4,233	4,196	4,053	4,787
(3) Average Age	40.04	40.48	41.09	41.34	41.82
(4) Average Credited Service	9.54	9.81	10.45	10.46	10.61
(5) Average Annual Salary	$41,238	$44,440	$44,710	$43,966	$44,596
Retirees and Beneficiaries					
(1) Number	2,022	2,098	2,376	2,972	3,098
(2) Average Age	62.75	63.18	62.83	61.41	61.85
(3) Average Monthly Benefit					
Base	$ 1,176	$ 1,205	$ 1,304	$ 1,460	$ 1,476
C.O.L.A.	$ 79	$ 79	$ 87	$ 102	$ 102
P.R.P.A.	$ 279	$ 258	$ 268	$ 208	$ 234
Total	$ 1,534	$ 1,542	$ 1,659	$ 1,770	$ 1,812
Vested Terminations					
(1) Number	335	481	777	408	508
(2) Average Age	45.49	47.74	47.92	44.26	45.11
(3) Average Monthly Benefit	$ 850	$ 1,178	$ 1,391	$ 847	$ 957
Non-Vested Terminations With Account Balances					
(1) Number	1,093	869	1,529	938	943
(2) Average Account Balance	$ 6,649	$ 8,356	$ 9,421	$ 9,773	$ 9,765

Note that any differences between the numbers shown above and those shown in TRS financial statements reflect data changes following publication of the financial statements.

STATISTICS ON ALL RETIREES AS OF JUNE 30

	1985	1986	1987	1988	1989
Service Retirements					
Number, Prior Year	1,627	1,855	1,922	2,194	2,760
Net Change During Year	228	67	272	566	110
Number, This Year	1,855	1,922	2,194	2,760	2,870
Average Age At Retirement	56.57	56.47	56.06	55.11	54.91
Average Age Now	63.49	64.01	63.52	61.84	62.25
Average Monthly Benefit	$ 1,537	$ 1,549	$ 1,672	$1 ,793	$ 1,834
Surviving Spouse's Benefits					
Number, Prior Year	40	64	69	70	85
Net Change During Year	24	5	1	15	18
Number, This Year	64	69	70	85	103
Average Age At Retirement	57.29	54.52	53.93	55.83	55.56
Average Age Now	66.20	63.98	63.49	66.74	67.26
Average Monthly Benefit	$ 953	$ 833	$ 750	$ 708	$ 738
Survivor's Benefits					
Number, Prior Year	37	38	34	32	36
Net Change During Year	1	(4)	(2)	4	(5)
Number, This Year	38	34	32	36	31
Average Age At Retirement	36.23	35.29	39.04	36.15	35.42
Average Age Now	41.84	43.08	46.77	44.66	43.73
Average Monthly Benefit	$ 1,501	$ 1,584	$ 1,746	$ 1,513	$ 1,652
Disabilities					
Number, Prior Year	60	65	73	80	91
Net Change During Year	5	8	7	11	3
Number, This Year	65	73	80	91	94
Average Age At Retirement	44.46	44.55	44.00	44.39	44.22
Average Age Now	50.30	50.64	49.93	49.87	49.71
Average Monthly Benefit	$ 2,026	$ 2,003	$ 2,075	$ 2,125	$ 2,267

ACTUARIAL BASIS

Valuation of Liabilities

A. Actuarial Method - Projected Unit Credit. Liabilities and contributions shown in the report are computed using the Projected Unit Credit method of funding. The unfunded accrued liability is amortized over 25 years. Any funded surpluses are amortized over five years.

The objective under this method is to fund each participant's benefits under the plan as they accrue. Thus, each participant's total pension projected to retirement with salary scale is broken down into units, each associated with a year of past or future service. The principle underlying the method is that each unit is funded in the year for which it is credited. Typically, when the method is introduced there will be an initial liability for benefits credited for service prior to that date, and to the extent that this liability is not covered by Assets of the Plan there is an Unfunded Liability to be funded over a chosen period in accordance with an amortization schedule.

An **Accrued Liability** is calculated at the valuation date as the present value of benefits credited with respect to service to that date.

The **Unfunded Liability** at the valuation date is the excess of the Accrued Liability over the Assets of the Plan. The level annual payment to be made over a stipulated number of years to amortize the Unfunded Liability is the **Past Service Cost**.

The **Normal Cost** is the present value of those benefits which are expected to be credited with respect to service during the year beginning on the valuation date.

Under this method, differences between the actual experience and that assumed in the determination of costs and liabilities will emerge as adjustments in the Unfunded Liability, subject to amortization.

B. Actuarial Assumptions -

1. Interest	9% per year, compounded annually, net of expenses.
2. Salary Scale	6.5% per year for the first five years of employment and 5.5% per year thereafter.
3. Health Inflation	9% per year.
4. Mortality	1984 Unisex Pension Mortality Table set back 1-1/2 years. All deaths are assumed to result from nonoccupational causes.
5. Turnover	Based upon the 1981-85 actual total turnover experience. (See Table 1).
6. Disability	Incidence rates in accordance with Table 2. Post-disability mortality in accordance with rates published by the Pension Benefit Guaranty Corporation to reflect mortality of those receiving disability benefits under Social Security.

7. Retirement Age	Retirement rates based on actual experience in accordance with Table 3.
8. Spouse's Age	Wives are assumed to be four years younger than husbands.
9. Dependent Children	Benefits to dependent children have been valued assuming members who are not single have one dependent child.
10. Contribution Refunds	100% of those terminating after age 35 with eight or more years of membership service, or with at least five years of membership service and at least three years of B.I.A. service will leave their contributions in the fund and thereby retain their deferred vested benefit. All others who terminate are assumed to have their contributions refunded.
11. C.O.L.A.	54% of those receiving retirement benefits will be eligible for C.O.L.A.
12. Sick Leave	4.7 days of unused sick leave for each year of service will be available to be credited once the member is retired.
13. Expenses	Expenses are covered in the interest assumption.

Valuation of Assets

Based upon the five-year average ratio between actuarial and book values of the System's assets. The actuarial value of assets equals the market value, except that fixed income investments are carried at book value. Assets are accounted for on an accrued basis and are taken directly from audited financial statements provided by Coopers & Lybrand. Valuation assets cannot be outside the range of book and actuarial values.

Valuation of Medical Benefits

Medical benefits for retirees are provided by the payment of premiums from the fund. A pre-65 cost and lower post-65 cost (due to Medicare) were assumed such that the total rate for all retirees equals the present premium rate. These medical premiums are then increased with the health inflation assumption. The actuarial cost method used for funding retirement benefits is also used to fund health benefits.

For FY90, the pre-65 monthly premium is $330.51 and the post-65 premium is $125.91, based on a total blended premium of $252.83. For FY91, the pre-65 monthly premium is $318.94 and the post-65 premium is $121.50, based on a total blended premium of $243.98. These rates and the pre- 65/ post-65 split were provided by Deloitte & Touche.

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INVESTMENT SECTION

WALTER J. HICKEL, GOVERNOR

DEPARTMENT OF REVENUE

OFFICE OF THE COMMISSIONER

P.O. BOX S
JUNEAU, ALASKA 99811-0400
PHONE: (907) 465-2300
TELEFAX: (907) 465-2389

December 13, 1990

To the Participating Employees and Employers of
The Alaska Teachers' Retirement Systems

Dear Members:

I am pleased to provide to you the Teachers' Retirement Trust Fund 1990 Investment Report.

The report describes the nature, management, and investment policy of the fund and presents the investment results for the fiscal year ending June 30, 1990 and the preceding four fiscal years. The report is included in the Annual Report of the Alaska Public Employees' Retirement System and Teachers' Retirement System published by the Department of Administration pursuant to Alaska Statutes 39.35.020(5) and 14.25.030(4).

Sincerely,

William E. Floerchinger
Acting Commissioner

WEF/MBB/mem

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TEACHERS' RETIREMENT TRUST FUND
1990 Investment Report

Creation, Purpose, and Nature of the Fund

The Teachers' Retirement Trust Fund is established by Alaska Statutes 14.25.170(5). The fund holds the assets of the Teachers' Retirement System. These assets are comprised of investments of various kinds, including stocks, bonds, and real estate. The fund was created as a means of paying retirement and other benefits to employees participating in the retirement plan administered under the Teachers' Retirement System. The retirement plan is a defined-benefit plan in which benefit levels are determined by length of employment and highest average salary of each employee. The plan is a joint-contributory plan in which both employee and employer make continuing contributions, calculated as a percentage of current salary. Employee contribution percentages are fixed by statute. Employer contributions are determined by annual evaluations of the fund by a consulting actuary. The plan is considered to be perpetual because it applies to future as well as current employees and because the employers (state and municipal governments or political subdivisions) are perpetual in nature.

The assets of the fund came into being and have grown because employers and employees have paid more into the fund in the form of contributions than has been paid out in benefits. Investment returns have further increased the fund's assets. Contributions currently exceed benefits by design, in order to be able to make the benefit payments that can reasonably be expected in the future. These projections of future benefit payments are one of the main factors estimated by the actuary in determining employer contribution rates. The other main factors are the amount of assets in the fund and the expected future returns on investments. Future benefits will be much larger than benefits paid today because of past and future growth in the number of employees, in their salaries, and in health care costs for retirees.

Participating employers are bound by the Alaska Constitution to pay the plan's benefits. Although benefits could be paid on a pay-as-you-go basis, the existence of a fund serves two purposes. For the employer, it smooths out over time the burden of paying these benefits, just like mortgage payments smooth out the burden of buying a house. For the employee, it provides insurance that employers will meet their obligations.

Trust Stature of the Fund

It is this insurance function which has caused the fund to be designated by Alaska law as a trust fund. Under common law, a trust fund is a fund which can only be used in the interests of persons designated by the creator of the fund as beneficiaries. Of course, in the case of the Teachers' Retirement Trust Fund, the beneficiaries are the employees, and have been so designated by the State in the laws creating the fund.

As a trust fund, it would be legally suspect for the State, or a municipal employer for that matter, to withdraw money from the fund to use for purposes other than paying benefits. Even underfunding or deferring of an employer's contributions would be questionable, based on Article II, Section 7 of the Alaska Constitution. This constitutional provision places a contractual obligation on employers to pay these benefits.

Perhaps most telling in regards to this obligation is the Alaska Supreme Court's decision in Hammond vs. Hoffbeck. This decision limits public employers' ability to diminish even benefits that could be, but have not yet been earned, by an existing employee. The Hammond vs. Hoffbeck decision is also based on Article II, Section 7 of the Alaska Constitution. This section reads:

> Membership in employee retirement systems of the State or its political subdivisions shall constitute a contractual relationship. Accrued benefits of these systems shall not be diminished or impaired.

Another reason for establishing and maintaining the fund as a trust is provided by the IRS. The federal tax code allows employee contributions to such funds and the earnings of such funds to be exempt from federal income taxes only if the fund is a trust "for the exclusive benefit" of employees. This actually amounts to a deferral of taxes since retirees or their beneficiaries are taxed on retirement benefit payments they will ultimately receive.

Thus, the Teachers' Retirement Trust Fund is a fund that must be managed solely with the employee in mind. A strong array of provisions in the Alaska Constitution, common law, Alaska Statutes, and federal tax code places the force of law behind this obligation.

Management of the Fund

Alaska Statutes 14.25.180 designates the Commissioner of Revenue as the treasurer of the system and the fiduciary of the fund. As the sole fiduciary, the Commissioner is solely responsible and accountable for the investment of the fund.

The fiduciary for a trust fund, also known as a trustee, is subject to two principal duties under common law -- a duty of prudence and a duty of loyalty. The duty of prudence requires the trustee to exercise a degree of care in managing investments that would be used by a person of ordinary prudence in managing their own investments. The duty of loyalty requires the trustee to act only in the best interests of the beneficiaries. Alaska law has reformulated these duties to higher and more demanding standards and made them specifically applicable to the Teachers' Retirement Trust Fund. These statutory standards require the fiduciary to exercise the standard of care required of a professional institutional investor managing large investments under a trust relationship and to act only in the best financial interests of the beneficiaries.

The importance of observing these fiduciary duties is underscored by Alaska Statutes holding the Commissioner, or a designee, personally liable for breaches. The Commissioner may delegate investment responsibilities to State officers or employees or to independent firms, banks, or trust companies. Even so, the Commissioner remains potentially liable through failure to act in response to knowledge of breaches, or through knowing participation in breaches, by designees who have been delegated investment powers.

As permitted by the statutes, the Commissioner has delegated investment responsibilities to both departmental staff and independent firms or financial institutions. State investment officers of the Treasury Division of the Department of Revenue manage fixed income investments. These include corporate and government bonds, money market investments, and real estate mortgages, the latter through financial institutions and mortgage lending companies on contract as loan servicers. Domestic and international corporate stock investments are managed by investment adviser firms under contracts which grant them full discretion for investment decisions, except for a domestic common stock index fund. Real estate equity investments are currently managed by real estate adviser firms through pools in which the Teachers' Retirement Trust Fund has invested along with other tax-exempt funds.

Table I
TEACHERS' RETIREMENT SYSTEM
FINANCIAL PROJECTIONS
(000s omitted))

Investment Return: 9.00% (nominal) **Salary Increases: 6.04% (6.5/5.5 assumed)**

As of June 30	Valuation Amounts on July 1			Flow Amounts during following 12 months							Ending Asset Valuation
	Total Assets	Accrued Liability	Surplus* (Deficit)	Total Salaries	Employer Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings	
1989	1,480,389	1,557,643	(77,254)	380,267	60,639	32,281	92,919	83,168	9,751	139,669	1,629,810
1990	1,629,810	1,701,068	(71,258)	403,235	60,124	30,968	91,093	86,498	4,595	153,490	1,787,895
1991	1,787,895	1,855,811	(67,915)	427,591	63,042	32,753	95,795	90,010	5,785	168,412	1,962,092
1992	1,962,092	2,026,276	(64,184)	453,417	66,118	34,641	100,759	93,718	7,041	184,852	2,153,985
1993	2,153,985	2,213,998	(60,014)	480,803	69,360	36,637	105,997	97,635	8,362	202,959	2,365,305
1994	2,365,305	2,420,657	(55,352)	509,844	72,775	38,748	111,523	101,776	9,747	222,896	2,597,947
1995	2,597,947	2,648,085	(50,137)	540,638	76,371	40,980	117,352	106,159	11,193	244,841	2,853,981
1996	2,853,981	2,898,286	(44,305)	573,293	80,157	43,341	123,498	110,797	12,700	268,988	3,135,669
1997	3,135,669	3,173,450	(37,781)	607,920	84,139	45,837	129,976	120,756	9,220	295,325	3,440,214
1998	3,440,214	3,470,698	(30,484)	644,638	88,326	48,477	136,803	125,241	11,562	324,072	3,775,848
1999	3,775,848	3,798,196	(22,348)	683,574	92,729	51,268	143,997	133,646	10,351	355,584	4,141,783
2000	4,141,783	4,155,055	(13,272)	724,862	97,356	54,365	151,721	141,245	10,476	390,006	4,542,266
2001	4,542,266	4,545,434	(3,168)	768,644	102,218	57,648	159,866	145,947	13,919	427,826	4,984,011
2002	4,984,011	4,975,940	8,071	815,070	106,175	61,130	167,305	150,136	17,169	469,519	5,470,699
2003	5,470,699	5,451,319	19,379	864,300	110,035	64,823	174,858	159,165	15,693	515,225	6,001,617
2004	6,001,617	5,971,188	30,429	916,504	114,351	68,738	183,089	166,416	16,673	565,202	6,583,492

* Surpluses reduce employer contributions over 5 years
* Deficits increase employer contributions over 25 years

As of June 30	Funding Ratio
1989	95.0
1990	95.8
1991	96.3
1992	96.8
1993	97.3
1994	97.7
1995	98.1
1996	98.5
1997	98.8
1998	99.1
1999	99.4
2000	99.7
2001	99.9
2002	100.2
2003	100.4
2004	100.5

Flow Amounts					
As % of Salaries				As % of Assets	
Employer Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings
15.95%	8.49%	24.44%	21.87%	0.63%	9.00%
14.91	7.68	22.59	21.45	0.27	9.00
14.74	7.66	22.40	21.05	0.31	9.00
14.58	7.64	22.22	20.67	0.34	9.00
14.43	7.62	22.05	20.31	0.37	9.00
14.27	7.60	21.87	19.96	0.39	9.00
14.13	7.58	21.71	19.64	0.41	9.00
13.98	7.56	21.54	19.33	0.42	9.00
13.84	7.54	21.38	19.86	0.28	9.00
13.70	7.52	21.22	19.43	0.32	9.00
13.57	7.50	21.07	19.55	0.26	9.00
13.43	7.50	20.93	19.49	0.24	9.00
13.30	7.50	20.80	18.99	0.29	9.00
13.03	7.50	20.53	18.42	0.33	9.00
12.73	7.50	20.23	18.42	0.27	9.00
12.48%	7.50%	19.98%	18.16%	0.27%	9.00%

Treasury investment officers are subject to certain professional accreditation requirements and also must conform to "The Code of Ethics and Standards of Professional Conduct" of the Financial Analysts Federation as well as the Alaska Executive Branch Ethics Act.

Investment Policy

As fiduciary, the Commissioner is charged by statute with determining the investment objectives and policy for the fund. In so doing, the Commissioner must consider both the assets and liabilities of the system both now and in the future.

One of the means for considering the current and future condition of the system is provided by long-range projections, prepared by the system's actuary and contained in Table I. Table I incorporates the same assumptions used by the actuary in determining contribution rates. Under these assumptions, total contributions currently and for the foreseeable future exceed benefit payments. Thus, the fund could be expected to experience no net outflow and should continue to grow in size for a long period of time. Sensitivity analyses of the projections indicate there may be some chance that a small portion of investment earnings (no more than one-eighth) would be needed after fiscal year 1991 to cover benefit payments. Even in such cases, the size of the fund and its earnings would continue to grow.

Further insight into the current and probable future condition of the system can be gained from examining Table II. The system has more or less average membership characteristics indicating that it may be closer to seeing its net contribution inflow evaporate, compared to a fund with a relatively low percentage of retired members. A provision for normal retirement after 20 years of service, compared to 30 years for many plans, is one factor elevating the system's percentage of retirees.

The table also indicates that the system is extremely well funded, its assets being only 5.0% short of accrued benefits, compared to 15.0% short for U.S. public pension funds on average. The higher than average spread of the assumed rate of return over salary increases compared to public pension funds is based on the substantial portion (46 percent) of the fund invested in equities, with their higher than average expected returns, balanced by a relatively high book yield of 9.75 percent on the remaining fixed income portion of the fund. The assumed spread also reflects the dimmer prospects for salary increases as State petroleum revenues decline and budgets tighten. Thus, the fund is in very good condition and can expect to do well in the next few years with only a small and somewhat uncertain need for cash flow from investments to pay benefits.

For purposes of establishing investment policy, it is the perpetual nature of the fund and its current and probable future condition of net cash inflows that are the most important characteristics. The long time-span before any significant net cash flow is required from investments gives the fund the luxury to make investments which should enjoy higher returns over the long-run, although they may be slow to materialize, or be erratic in the short-run, and it allows greater use of investments which may experience substantial fluctuations in value. The character of the fund expands the universe of investment possibilities and increases the potential for achieving higher returns on the investments.

The primary objective of the investment policy is to maximize the returns on the funds' total investments over a long time-span without undertaking an unreasonable degree of risk of reducing the principal of the fund or of realizing lower returns which would necessitate raising the contribution levels. Higher investment returns over the years mean, at least initially, a larger fund. A larger fund size relative to a retirement system's liability for future benefit payments is the beneficiaries' best security that the pensions will be paid when they are due.

Table II

TEACHERS' RETIREMENT TRUST FUND

	Teachers Retirement System [1]	Mean of U.S. Public Pension Funds [2]	Mean of U.S. Corporate Pension Funds [2]
Average Age of Active Members	41.82	40.7	40.3
Average Years of Credited Service	10.61	11.0	11.5
% of Total Members Retired	26.6%	27.6%	21.0%
% of Active Members Vested	56.1%	50.4%	59.1%
Period in Years to Amortize Unfunded Accrued Benefits	25	29.4	23.6
% of Pension Obligation Funded	95.0%	85.0%	NA
Spread of Actuarial Rate of Return Assumption Over Salary Increase Assumption	2.5% first 5 years; 3.5% thereafter	2.1%	3.4%

[1] *"Actuarial Valuation as of June 30, 1989, "William M. Mercer-Meidinger, Inc.*
[2] *"Investment Management 1990," Greenwich Associates, Greenwich, Connecticut*

Returns which average higher than the actuarially assumed returns (currently 9 percent) eventually lead to either increases in pension benefits or decreases in the amounts of annual employer contributions. This tends to bring the size of the fund back closer to the present value of accrued benefits.

In line with this objective, the general investment policy is to emphasize equity investments. Equities are expected to provide, and historically have provided, the highest returns over long periods of time, even though equity returns are subject to substantial variation over shorter time periods. Currently, equity investments include domestic and foreign common stocks and real estate equity funds. The rest of the fund is invested in fixed income investments, primarily U.S. Treasury securities but also including corporate bonds and real estate mortgages. For similar reasons as the emphasis on equities, fixed income investments emphasize intermediate to longer-term instruments whose market prices are subject to greater fluctuation but yield more over the long-run than shorter-term investments. Table III indicates the long-term historical experience on investment returns that underlies this policy.

Table III

U.S. CAPITAL MARKETS
AVERAGE ANNUAL RETURN
1926-1989

Domestic Common Stocks	10.3%
Long-Term Corporate Bonds	5.2
Long-Term U.S. Treasury Bonds	4.6
Intermediate-Term U.S. Treasury Bonds	4.9
U.S. Treasury Bills	3.6
Inflation	3.1%

Source: Ibbotson Associates

The most important aspect of implementing the fund's investment policy is the decision as to how much of the fund's assets are to be placed in various classes of investments (the asset allocation decision). By far the majority of the investment returns are attributable to asset allocation decisions as opposed to the choice of independent management firms or choice of individual securities or investments within an asset class.

Table IV presents ranges for various asset classes as a percentage of the total fund that have been established to guide the asset allocation decision. The table also shows the asset allocation at the end of fiscal year 1990. As the table indicates, further allocations to all classes of equities can be expected in order to bring the allocations to such classes within the policy ranges. At the same time, fixed income investments necessarily will decline. Mortgage investments will eventually be eliminated as existing mortgages are paid off.

Table IV

TEACHERS' RETIREMENT TRUST FUND
ASSET ALLOCATION
(as a percent of market value)

Asset Class	Policy Minimum	Policy Maximum	Actual June 30, 1990
Equities	55%	65%	46%
Common Stocks	45	55	40
Domestic	35	45	33
International	10	10	7
Real Estate	10	10	6
Fixed Income	35	45	54
Bonds	35	45	43
Mortgages	0	0	5
Cash	0%	10%	7%

Table V presents the asset allocations as of the end of the last five fiscal years. The table shows the increasing emphasis on stocks and intermediate to long-term corporate and Treasury bonds, an outgrowth of the investment policy. By the same token, short-term money market debt has been de-emphasized.

Table V

TEACHERS RETIREMENT FUND
HISTORICAL ASSET ALLOCATION
(as a percent of market value)

	6-30-86	6-30-87	6-30-88	6-30-89	6-30-90
Real Estate Equities	5.7%	6.0%	6.5%	5.8%	5.6%
Domestic common stocks	25.0	30.6	26.9	27.6	32.7
International common stocks	6.4	10.2	6.9	6.4	7.5
Total Equities	37.1	46.8	40.3	39.8	45.7
International Debt	-	-	-	-	-
Corporate Debt	10.2	9.0	10.9	11.1	13.8
Treasury Debt	27.5	28.8	33.2	32.8	28.7
Money Markets	9.0	6.1	7.7	9.8	6.6
Total Marketable Debt	46.7	43.9	51.8	53.7	49.1
Mortgages	16.2	9.3	7.9	6.5	5.2

The Economy in Fiscal Year 1990

At the end of fiscal year 1990, the U.S. economy continued to show signs of slow growth. Slowing gains in services employment, increased consumer savings, and decreased real consumer spending were siphoning growth from the economy.

With inflation fears subsiding, equities were pushed into record high territory. For the fiscal year, the Standard & Poor's 500 Index generated a return of 16.5%. On the international front, the decline in the Japanese stock market reduced the Europe, Australia, Far East ("EAFE") Index returns to 3.3% for the fiscal year.

The sluggishness of the economy also helped the bond market to rally at year end, after posting five months of losses. For the year, the Salomon Brothers Broad Investment-Grade Bond Index generated a return of 7.7%.

Investment Returns

Table VI presents the annual rates of return for the fund by asset class for each of the last five fiscal years and for the entire period. An auditor's opinion accompanies the table. The rates of return are total returns. Total returns include unrealized changes in market value as well as income earned and realized gains or losses. The performance of the fund's investments can be gauged by comparison to market indices and from percentile rankings in comparison with other large state pension funds.

Total Fund Assets

Table IX indicates that the fund has had an average annual return of 12.2% on its total assets for the last five fiscal years. This ranked the fund in the top 58% of State retirement funds over $500 million in size which are in SEI Corporation's universe of funds. SEI Corporation provides investment performance measurements for these funds.

Over the last five years the relative performance of the fund has improved. For fiscal year 1990, the fund had a 10.4% return, ranking it in the top one-third of SEI's funds. For the two- and three-year periods ending June 30, 1990, the fund ranked in the top 32% and 42% respectively.

Table IX also shows that the returns on all the fund's assets excluding real estate (total marketable securities in Table IX) rank almost in the top quartile for the last five fiscal years.

The funds's extraordinary concentration in real estate and its performance has been a serious drag on total fund performance. In fiscal year 1986, the fund had 20.3% of its assets in real estate compared to 1.8% on average for other funds. By fiscal year 1990, the fund's real estate allocation had decreased to 10.2%, still almost twice the average of 5.4% for other large State retirement funds. For the last five years, the fund has had one of the highest allocations to real estate of any fund in the SEI universe.

During the last five years, real estate equity returns for all SEI funds, at 7.4% have seriously underperformed marketable securities returns of 12.6%. Also, the fund's relative performance on mortgage investments, at the 72nd percentile, has been poor. This is probably a result of the severity of the collapse of the housing market in Alaska during this period, given the almost total concentration of fund mortgages in Alaska.

Domestic Common Stock

Table VII presents rates of return for individual investment adviser firms managing fund assets invested in common stocks.

As seen in Table VII, the rankings of domestic common stock investments, at the 38th percentile averaged above the median performance (50th percentile) of other large funds over the five year period. However, rates of return for common stocks, as shown in Table VII, have lagged behind the market averages shown in Table VIII. In part this lag is attributable to the stage of the stock market cycle embraced by the five year period under consideration. The common stock returns for the fund include the money market rates on the cash normally held by most active stock managers. The cash allows them to take advantage of buying opportunities. In contrast, the market indices reflect a fully invested position at all times. This makes it more difficult for active managers to beat the market during an up leg of a cycle, but easier on the down side. Holding cash is also a handicap in general over long time-spans since the market's general trend is to increase in value over time as economic growth takes place.

In fiscal year 1990, domestic common stocks in total did match the Standard & Poor's 500 Index and improved their relative ranking to the 40th percentile. This may be due in part to several changes initiated in the management of domestic common stocks. At the beginning of fiscal year 1989, a domestic common stock index fund managed by State Street Bank & Trust was initiated. Halfway through the year, four new active managers were added. Another change was the negotiation of performance-based fees for all active managers except Lehman Ark Management and their initiation in January, 1989.

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Independent Auditors' Report

State of Alaska
Department of Revenue
Division of Treasury:

We have audited the accompanying schedule of total rates of return for the Teachers' Retirement Trust Fund (Fund), covering marketable debt securities, domestic common stocks, international common stocks, real estate equities and mortgage loans for the period from July 1, 1985 to June 30, 1990 and for each of the years in the five year period ended June 30, 1990. This schedule is the responsibility of the Fund's management. Our responsibility is to express an opinion on this schedule based on our audit.

We conducted our audit in accordance with standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule is free of material misstatement. An audit includes examining, on a test basis, the underlying data from which the total rates of return are calculated, as well as the calculations themselves. An audit also includes assessing the basic assumptions used by management in making the calculations and the overall presentation of the total rates of return. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the schedule referred to above presents fairly, in all material respects, the total rates of return for the Teachers' Retirement Trust Fund for the period from July 1, 1985 to June 30, 1990 and for each of the years in the five year period ended June 30, 1990, computed in accordance with the measurement and disclosure criteria set forth in the notes to the schedule.

KPMG Peat Marwick

October 5, 1990

Table VI

STATE OF ALASKA
DEPARTMENT OF REVENUE
DIVISION OF TREASURY
TEACHERS' RETIREMENT TRUST FUND

Schedule of Total Rates of Return

Period July 1, 1985 to June 30, 1990

	Dollar-weighted						Time-weighted
	Year ended June 30					Annual average for five years ended June 30,	annual average for five years ended june 30,
	1986	1987	1988	1989	1990	1990	1990
Marketable securities:							
Equity:							
Domestic common stocks	37.5%	19.6%	(7.3)%	17.6%	17.5%	14.5%	16.0%
International common stocks	91.8	38.9	(4.9)	9.4	15.9	24.0	26.3
Total equity	46.1	23.6	(6.8)	16.0	17.1	16.1	18.0
Debt	24.2	4.3	7.5	14.3	6.9	11.0	11.2
Total marketable securities	31.3	12.2	9	15.0	10.8	13.0	13.6
Real estate:							
Equities	8.1	5.3	6.3	8.1	4.8	6.5	6.5
Mortgage loans	12.1	8.6	11.7	12.5	5.8	10.6	10.1
	11.1	8.0	9.0	10.4	5.2	9.0	8.7
Total Fund investments	25.5%	11.4%	2.1%	14.4%	10.2%	12.4%	12.5%
Equity investments (note 3)	36.9	20.8	(5.1)	14.7	15.3	14.5	15.7
Fixed income investments (note 3)	20.5	5.1	8.1	14.1	6.7	10.9	10.7
Total Fund investments	25.5%	11.4%	2.1%	14.4%	10.2%	12.4%	12.5%

See accompanying notes to schedule of total rates of return.

STATE OF ALASKA
DEPARTMENT OF REVENUE
DIVISION OF TREASURY
TEACHERS' RETIREMENT TRUST FUND

Notes to Schedule of Total Rates of Return

Period July 1, 1985 to June 30, 1990

(1) General

The Teachers' Retirement Trust Fund (Fund) represents the investment portfolio of the State of Alaska Teachers' Retirement System (TRS). Investments of the Fund include marketable debt securities, domestic common stocks, international common stocks, real estate equities and mortgage loans.

The market values utilized in the total rates of return calculations are determined as follows:

Marketable Securities

Determined at the end of each month by the custodial agents. The agents' determination of market values involves, among other things, using pricing services or prices quoted by independent brokers.

Mortgage Loans

Determined by adjusting purchased yields to the current secondary mortgage market conditions established by the MGIC Investment Corporation. Market value has also been reduced by a loan loss provision for uncollectible problem loans.

Real Estate Equities

Valued by the various companies managing the funds.

(2) Calculation of Total Rates of Return

The dollar-weighted (or internal) rate of return represents the annually compounded rate of return that discounts the year-end market value of an investment portfolio and that year's cash flows in and out of the portfolio back to the portfolio's market value at the beginning of the year. The annual average for the five-year period ended June 30, 1990 is calculated similarly except that annual fluctuations in market value are not considered - only market value at the beginning and the end of the five-year period are used, with the result being annualized.

The annual average five-year time-weighted rate or return represents an average of each of the five dollar-weighted rates or return weighted equally.

(Continued)

The dollar weighted rate of return measures the actual internal growth rate of the portfolio. The dollar-weighted rate of return is influenced by the timing of contributions to and disbursements from a portfolio which are beyond the control of the portfolio managers. Time-weighted rates of return are frequently used to measure the performance of portfolio managers because they can help eliminate the influence of cash flows that are beyond the control of portfolio managers.

The historical total rates of return may not be indicative of future total rates of return. Attention should be drawn to the fact that other performance calculation methods may produce different results and that comparisons of investment results should consider qualitative circumstances and should be made only to portfolios with generally similar investment objectives.

(3) Equity Investments and Fixed Income Investments

Included as equity investments are domestic and international common stocks and real estate equities. Included as fixed income investments are debt marketable securities and mortgage loans.

International Common Stock

International common stocks have produced the highest returns for the fund, averaging over 26 percent for the last five years. However, the managers' performance relative to other funds and market indices has been poor. To improve the performance of international common stock, a competitive selection of managers is expected to be undertaken in 1991 after first establishing by contract a custodian bank for international investments. The custodian bank is necessary to consider non-bank investment adviser firms as managers, since such firms do not provide custody services. These non-bank adviser firms offer superior performance and a larger number of competitors to choose from. Responses to a request for proposals for securities custody services have been received and a contract including provisions for international custody is expected to be in place early in 1991.

Marketable Debt Securities

During the last five fiscal years, performance of investments in marketable debt securities has been in the top 14 percent of the rankings as indicated by Table IX. A significant factor in the marketable debt securities performance is the longer than average maturities of debt instruments held by the fund. Table X compares the average maturity of the fund's marketable debt to the median of state retirement funds over $500 million in size.

It is interesting to note that during fiscal years 1985-1989 the rates of return on long-term governments, 15.49%, did exceed those on long-term corporates, 15.02%, and intermediate governments, 11.37%. This diverges from the long-term (1926-1989) experience cited in Table III. Thus, the fund's emphasis on long Treasuries through fiscal year 1989, as indicated by Tables V and X was beneficial to the fund's performance. However, as Tables V and X also indicate, there was a shift in emphasis during 1990 to corporate and intermediate-term government debt that is expected to provide good performance in the future as these asset classes return to their historical performance patterns.

The recent superior performance of long-term debt was largely due to the unique historical occurrence of record high inflation rates in the late 1970's and early 1980's. The high inflation caused the Federal Reserve to push interest rates to record levels in order to squelch runaway prices. In the latter part of the 1980's, as inflation and interest rates receded from these record highs, long-term bond prices soared, producing record high returns.

Real Estate Equities

Real estate equities have produced the lowest returns for the fund during the period 1986-90. In the late 1970's and early 1980's, strong inflation resulted in rapid appreciation of real estate, as it did for other hard assets. Combined with extraordinary tax incentives for real estate investments, the run-up in real estate prices produced very high returns to investors. Tax-exempt investors such as pension funds could fully benefit from this market movement, as well as private investors. Tax-exempt institutions could carve out a share of the tax benefits through joint ventures with taxable parties, in addition to benefiting from the general bidding up of property values by taxable investors.

For institutional investors such as pension funds which would hold real estate as part of a portfolio of various classes of investments, real estate also offered the attraction of increasing diversification. Diversification into real estate was particularly desirable because real estate rates of return have had a very low correlation with returns from other classes of investments. This meant much less volatility in returns for the total portfolio. So overall, real estate seemed to be the perfect investment -- offering the highest returns but also reducing risk more than other investments.

Table VII

TEACHERS' RETIREMENT TRUST FUND
COMMON STOCK MANAGERS
TOTAL RATES OF RETURN
(and rankings)*

Manager	Fiscal Year 1986	Fiscal Year 1987	Fiscal Year 1988	Fiscal Year 1989	Fiscal Year 1990	Fiscal Years 1986-90
Domestic Common Stocks						
Alger Management	46.0% (10)	9.3% (94)	-11.2% (93)	21.7% (20)	28.7% (03)	17.3% (26)
Invesco Capital Management	29.6 (75)	19.4 (49)	-0.8 (17)	14.9 (80)	12.4 (57)	14.7 (77)
Lehman Ark Management	34.5 (46)	26.1 (13)	-6.2 (60)	19.9 (34)	15.5 (42)	17.1 (30)
IDS	-	-	-	-	30.7 (03)	-
Miller, Anderson & Sherrerd	-	-	-	-	16.4 (38)	-
Loomis, Sayles	-	-	-	-	4.3 (88)	-
United Capital Management	-	-	-	-	2.2 (92)	-
State Street Bank & Trust	-	-	-	11.6 (94)	19.8 (26)	-
Total	36.0 (70)	18.7 (88)	-5.4 (24)	17.4 (66)	17.1 (40)	16.0 (38)
International Common Stocks						
Citibank N.A.	92.6 (46)	40.5 (55)	-7.0 (81)	7.6 (89)	18.8 (47)	26.3 (86)
Morgan Guaranty Trust Co.	93.8 (41)	38.3 (73)	-2.9 (32)	10.4 (51)	14.8 (82)	26.9 (72)
Total	93.2% (44)	39.4% (64)	-4.9% (52)	9.0% (73)	16.7% (61)	26.6% (83)

Source: *SEI Corporation. Returns are time-weighted rates of return.*

Note: * *Rankings are the numbers in parentheses. 1 is the highest ranking. 100 is the lowest ranking.*

Table VIII

ANNUALIZED RATES OF RETURN FOR MARKET INDICES

Index	Fiscal Year 1986	Fiscal Year 1987	Fiscal Year 1988	Fiscal Year 1989	Fiscal Year 1990	Fiscal Years 1986-90
Standard & Poor's 500 Stock Index	35.9%	25.2%	-6.9%	20.5%	16.5%	17.3%
Europe, Australia, Far East Stock Index	89.0	58.3	4.1	9.5	3.3	28.6
Salomon Brothers Broad Investment - Grade Bond Index	19.9	5.6	8.1	12.2	7.7	10.6
91-Day U.S. Treasury Bills	7.1%	5.6%	5.5%	7.8%	7.9%	6.8%

Table IX

TEACHERS' RETIREMENT TRUST FUND DEBT, TOTAL SECURITIES, AND TOTAL FUND TOTAL RATES OF RETURN (and Rankings)*

Asset Class	Fiscal Year 1986	Fiscal Year 1987	Fiscal Year 1988	Fiscal Year 1989	Fiscal Year 1990	Fiscal Years 1986-90
Marketable Debt Securities	23.9% (18)	2.8% (90)	7.8% (50)	14.2% (10)	6.9% (68)	10.9% (14)
Total Marketable Securities	30.7 (18)	11.2 (38)	0.6 (68)	14.8 (46)	10.8 (40)	13.2 (29)
Total Fund Assets	25.5% (33)	10.9% (38)	1.8% (69)	14.2% (40)	10.4% (30)	12.2% (58)

Source: *SEI Corporation. Returns are time-weighted rates of return.*

Note: ** 1 is the highest rank; 100 is the lowest ranking.*

Table X

MARKETABLE DEBT SECURITIES
AVERAGE MATURITY
(years)

Fiscal Year End	Teachers' Retirement Trust Fund	Median for Large State Retirement Funds
1985	9.3	9.8
1986	11.2	8.0
1987	17.4	9.4
1988	16.5	8.6
1989	13.3	9.7
1990	13.0	8.4

Source: SEI Corporation

These powerful stimuli led to excessive amounts of capital being made available for financing real estate, rampant speculative construction, and ultimately the severest overcapacity the industry has seen. The inevitable downturn in the cycle was acutely more pronounced as a result of the Tax Reform Act of 1986 which eliminated or strictly curtailed most of the tax benefits for real estate investments.

The supply of real estate is highly inelastic in the short-run, due to its long lead times for construction and its long duration once constructed before it's finally "consumed" and demolished. Thus, real estate cycles are among the longer of economic cycles. Even in the face of the recent prolonged economic expansion, real estate markets remained difficult. Eventually, real estate returns should improve, but absent the return of a highly inflationary environment and liberal tax incentives, real estate is not expected to yield the heady returns that formerly characterized such investments.

Table XI contains the returns for real estate equity managers for the last five years while Tables XII and XIII show the diversification of the managers' real estate investments geographically and by property type. As Table XI indicates, returns for the total real estate equities portfolio for the last five years have been slightly below the middle of the pack of real estate equity funds in the SEI universe, although a bit above the market index for such funds. The fund has been in the process of withdrawing from the worst performing manager's fund, John Hancock Properties, since January 1986. At the end of fiscal year 1990, the Hancock investment represented roughly one-half percent of total real estate equity investments.

Real estate equity investments to date have consisted of shares of pools of commingled investments with other tax-exempt funds. These pools are managed by the firms shown in Table XI. For small funds, commingled pools offer diversification and an efficient means of investing in real estate.

In the future, the fund's investments in real estate may take the form of a separately managed account for the fund or investments directed by the fund. Directed investments may take the form of individual, partnership, or joint venture ownership. These changes will improve the ability to select and structure properties with risk, return, and diversification attributes most beneficial to the fund.

Table XI

TEACHERS' RETIREMENT TRUST FUND
REAL ESTATE EQUITY MANAGERS
TOTAL RATES OF RETURN
(and Rankings)*

Manager	Fiscal Year 1986	Fiscal Year 1987	Fiscal Year 1988	Fiscal Year 1989	Fiscal Year 1990	Fiscal Years 1986-90
Aetna Capital Management	8.2% (58)	6.1% (58)	5.1% (64)	5.8% (62)	4.5% (78)	5.9% (67)
John Hancock Properties	6.3 (80)	-2.4 (100)	3.4 (78)	-12.6 (100)	-12.3 (100)	-1.4 (97)
Equitable Real Estate Investment Management	8.4 (56)	7.9 (40)	6.6 (58)	8.0 (30)	6.7 (47)	7.5 (46)
Sentinel Real Estate Corporation	9.9 (43)	6.2 (55)	7.2 (50)	5.9 (62)	2.0 (89)	6.2 (65)
J.M.B. Institutional Realty Corporation	8.8 (52)	8.6 (32)	7.0 (55)	11.7 (21)	6.4 (52)	8.5 (36)
J.P. Morgan Investment Management	13.3 (18)	13.1 (7)	9.2 (32)	9.2 (26)	6.3 (53)	10.2 (18)
Karsten Realty Advisors	7.4 (70)	8.6 (32)	10.1 (26)	6.7 (52)	6.5 (51)	7.8 (45)
Prudential - PRISA	5.5 NA	-	-	-	-	5.5 NA
Total Real Estate Managers	**8.4% (54)**	**6.3% (55)**	**6.6% (58)**	**7.0% (48)**	**4.8% (73)**	**6.6% (59)**
National Council of Real Estate Investment Fiduciaries Index	8.9%	4.7%	7.1%	6.7%	5.3%	6.5%

Source: *SEI Corporation. Returns are time-weighted rates of return.*

Note: * *Rankings are the numbers in parentheses. 1 is the highest ranking. 100 is the lowest ranking.*

Table XII

PUBLIC EMPLOYEES' AND TEACHERS' RETIREMENT TRUST FUNDS
REAL ESTATE EQUITIES
GEOGRAPHICAL DIVERSIFICATION
(percent of market value as of March 31)

Manager or Fund	Year	East					South					Midwest					West				
		86	87	88	89	90	86	87	88	89	90	86	87	88	89	90	86	87	88	89	90
Aetna		19%	20%	13%	17%	19%	19%	18%	17%	17%	16%	7%	6%	6%	5%	3%	55%	56%	64%	61%	62%
Equitable		30	32	29	33	33	29	27	29	26	24	17	17	16	15	19	24	24	26	26	24
John Hancock*		29	30	31	22	22	22	23	22	29	29	23	22	22	12	12	26	25	25	37	37
J.M.B Fund III/IV		22	12	21	30	29	27	34	26	18	16	30	24	23	27	28	21	30	30	25	27
Sentinel		1	1	1	3	2	53	52	50	49	50	15	12	12	12	13	31	35	37	36	35
Karsten		0	0	0	0	0	10	5	5	5	4	0	0	0	0	0	90	95	95	95	96
J.P. Morgan		57	54	55	62	63	27	25	23	19	18	16	20	21	18	14	0	1	1	1	5
Weighted average of Alaska Funds		23	21	21	24	19	27	26	25	23	29	15	14	14	13	16	35	38	40	40	36
Weighted average of all open end funds in Evaluation Associates, Incorporated database.		28%	28%	27%	30%	32%	26%	26%	25%	25%	23%	14%	15%	15%	14%	14%	32%	31%	33%	31%	31%

Notes:
* John Hancock: used 12-31-88 information for 1989 and 1990

Table XIII

PUBLIC EMPLOYEES' AND TEACHERS' RETIREMENT TRUST FUNDS
REAL ESTATE EQUITIES
DIVERSIFICATION BY PROPERTY TYPE
(percent of market value as of March 31)

Manager or Fund	Year	Office					Retail					Industrial					Residential					Hotel				
		86	87	88	89	90	86	87	88	89	90	86	87	88	89	90	86	87	88	89	90	86	87	88	89	90
Aetna		46%	45%	46%	40%	44%	18%	19%	20%	24%	17%	24%	23%	24%	21%	21%	6%	7%	7%	11%	14%	6%	7%	3%	4%	4%
Equitable		42	40	45	43	39	36	36	33	38	43	14	15	14	13	13	0	0	0	1	1	8	8	8	5	4
John Hancock[1]		35	34	34	64	64	11	10	11	6	6	40	39	39	21	21	11	14	14	6	6	3	3	2	3	3
JMB Fund III/IV		32	27	35	43	44	68	73	65	53	51	0	0	0	4	4	0	0	0	0	1	0	0	0	0	0
Sentinel		9	8	7	7	6	3	8	10	10	11	10	2	2	2	1	78	82	81	81	82	0	0	0	0	0
Karsten		5	5	5	4	3	79	80	81	83	85	16	15	14	13	12	0	0	0	0	0	0	0	0	0	0
J.P. Morgan		55	51	47	50	41	38	36	35	30	35	5	11	16	18	21	0	0	0	0	1	2	2	2	2	2
Weighted Average of Alaska Funds		29	29	30	30	28	27	37	35	34	31	15	10	10	8	8	26	24	23	28	32	2	2	1	1	1
Weighted Average of all open end funds in Evaluation Associates, Inc. database.		47%	44%	44%	41%	36%	22%	23%	23%	26%	28%	16%	17%	16%	15%	17%	8%	10%	10%	12%	13%	7%	6%	7%	6%	6%

Notes:

1. *John Hancock: used 12-31-88 information for 1989 and 1990*

Separate account or directed real estate investments are now possible because the size of the fund has grown to the point of being able to make such investments in an efficient and diversified manner. It is also made possible by enactment of legislation, Chapter 141, in 1988 that permits such investments. Formerly, the fund was restricted by statute to real estate equity pools.

A request for proposals for a real estate advisory firm to provide professional advice in developing policy and selecting and structuring real estate investments has been advertised. This is the first step in beginning separate account or directed investment in real estate equities. At the same time, commingled pool investments may still be considered for investment in smaller properties in an efficient manner and to provide greater diversification.

Real Estate Mortgages

The total return measurement for real estate mortgage investments in Table VI is of limited usefulness. These investments are not readily marketable and they are expected to be held to maturity. In this case, the realized rates of return may be more pertinent. Realized returns include the interest on mortgage loans and any realized gains or losses on disposition of foreclosed properties but excludes changes in market value. Table XIV shows that the realized rates for mortgages have declined.

Table XIV

TEACHERS' RETIREMENT TRUST FUND
MORTGAGE LOANS
REALIZED RATES OF RETURN

Fiscal Year	Realized Return
1985	12.9%
1986	11.2
1987	13.0
1988	10.3
1989	9.2
1990	9.7
1985-90	11.0%

In part, this is due to the fact that interest rates have declined from the early 1980's. This resulted in lower mortgage returns due to lower interest rates on new purchases. More importantly, since new purchases stopped essentially in fiscal year 1986, heavy payoffs of mortgage loans made at high rates in the early 1980's pushed the average yield down on the remaining mortgage portfolio. Most of the payoffs came from refinancings with other lenders. Table XV reflects these activities.

Mortgage returns have also been hurt since fiscal year 1986 by heavy delinquencies and defaults resulting from the Alaska recession. The mortgage loans have been highly concentrated inside Alaska. At June 30, 1990, only 5.8 percent were secured by property outside Alaska.

Tables XV and XVI show the history of the fund's delinquent loans and real estate owned. The percentages for delinquent loans and real estate owned are magnified by the fact that the mortgage loan portfolio has been shrinking, as shown in Table XVII, with the shrinkage coming from good, commercially-viable loans paying off while the bad loans remain with the fund. Nevertheless, liquidation of real estate owned, with the exception of one property, has resulted to date in net losses of less than $200,000 for the fund, disregarding the opportunity costs of invested funds. This is shown in Table XVIII.

Table XV

PUBLIC EMPLOYEES' AND TEACHERS' RETIREMENT TRUST FUNDS
MORTGAGE LOAN ACTIVITY

Fiscal Year	Number of Mortgage Purchases	Number of Mortgage Payoffs	Number of Delinquencies and Defaults at June 30[1]
1982	935	NA	NA
1983	772	280	82
1984	813	707	75
1985	725	508	127
1986	328	1,145	231
1987	7	1,237	406
1988	0	255	491
1989	0	160	556
1990	0	117	481

Note:
[1] *Loans 60 or more days delinquent plus real estate properties owned ("REO").*

As the 104 properties currently owned by the fund and additional foreclosures of delinquent loans are disposed of, losses are expected overall. The current estimate of loss is reflected in the $5,170,000 loan loss allowance applied against the value of mortgage assets on the fund's books.

Table XVI

TEACHERS' RETIREMENT TRUST FUND
MORTGAGE LOAN DELINQUENCIES AND REAL ESTATE OWNED (REO)[1]
($ millions)

June 30	60 Days or More Delinquent	REO	Total Delinquencies and REO	60 Days or More Delinquent	REO	Total Delinquencies and REO
1983	2.5%	1.0%	3.5%	$4.2	$1.8	$6.0
1984	1.6	1.0	2.6	2.9	1.9	4.8
1985	3.1	1.2	4.3	6.2	2.4	8.6
1986	7.5	1.2	8.7	12.7	2.1	14.8
1987	19.7	5.1	24.7	22.9	5.9	28.8
1988	22.9	8.9	31.7	23.6	9.2	32.7
1989	29.2	12.0	41.2	27.3	11.2	38.6
1990	23.3%	12.5%	35.8%	$20.4	$10.9	$31.3

Note:
[1] *Percentages are the percentages of total loans and REO.*

Table XVII

TEACHERS' RETIREMENT TRUST FUND
MORTGAGE ASSET ALLOCATIONS AT COST
($ millions)

June 30	Total Fund	Mortgages	Mortgage as % as Total Fund
1980	$318.4	$123.1	38.7%
1981	387.0	134.9	34.2
1982	464.3	156.2	33.7
1983	561.2	169.8	29.8
1984	689.7	185.4	26.9
1985	811.8	201.8	24.9
1986	987.2	169.7	17.2
1987	1,178.2	116.4	9.9
1988	1,261.1	103.0	8.2
1989	1,385.2	93.7	6.8
1990	$1,574.7	$87.3	5.5%

Table XVIII

TEACHERS' RETIREMENT TRUST FUND
LIQUIDATION OF REAL ESTATE OWNED ("REO")

Fiscal Year	# REO's Sold	Gain (Loss)
1981	5	$ 64,957.31
1982	5	(26,602.30)
1983	4	93,446.21
1984	6	29,590.55
1985	4	73,507.64
1986	1	(1,184,604.54)
	2	(37,264.77)
1987	8	107,108.92
1988	11	(256,122.10)
1989	15	(5,398.86)
1990	14	(186,472.72)
	75	$ (1,371,674.01)

Importance to Beneficiaries of Investment Policy and Returns

Investment income is of paramount importance to a pension plan. A study by Frank Russell Co. indicates that, over the life of a defined-benefit plan, at least 80% of the benefits paid come from investment income, and only 20% from contributions. For any given participant, about 60% of the investment income accrues after retirement when contributions have ceased.

The current importance of investment income to the fund and its beneficiaries can be seen in the fact that investment income totaled $708.3 million for the fiscal period 1985 to 1990 while assets grew $885.0 million in book value. Total investment income exceeded contributions as a source of growth.

Table XIX shows the growth of the Teachers' Retirement Trust Fund for the period and the sources of that growth. Noteworthy is the fact that contributions have held rather steady while benefits have increased. This has been possible due to total returns averaging 13.9% per annum over the six-year period, well in excess of the 9%[1] on which contributions are based.

Also noteworthy is the fact that net contributions (i.e., contributions minus benefits) have dwindled to almost nothing. Should a significant portion of investment income be required in the future to meet benefit payments, there would be important implications for investment policy. Asset allocations could then be expected to favor fixed income investments more than would otherwise be the case, in order to lend greater stability to cash flows. However, as discussed under the section on investment policy, actuarial projections do not indicate a likelihood of significant reliance on investment income to meet benefit payments.

The main concern of beneficiaries in regard to the fund is whether the size of the fund is keeping up with the growth in the present value of the benefits likely to be paid in the future. Table XX presents two measures of this key relationship.

The ratios in Table XX are a comparison of the Teachers' Retirement Trust Fund assets to the present value of benefits projected to be payable in the future. The difference between the ratios is that the Governmental Accounting Standards Board ("GASB") ratio values the assets as of the year end while the actuary uses a five-year moving average.

Within the last few years, the system achieved full (or more than full) funding for the first time since its inception. When the retirement plan was initiated, a funding gap was created by credits granted for employees' service prior to the plan's start-up. The other factors that create or perpetuate a funding gap are retroactive benefit increases, actual experience less favorable than actuarial assumptions, and any deficiency in payment of actuarially required contributions.

Achievement and maintenance of full funding is the best assurance beneficiaries have of receiving the benefits to which they are entitled. At least one court[2] has held that employees have a vested property right to amounts deposited in a retirement trust fund. In the future, investment policy and returns will be ever more critical to maintenance of full funding as investment returns loom ever larger in the flow of funds. Table I projects investment earnings to constitute 75% of the total inflow to the fund by fiscal year 2004, compared to approximately 63% in fiscal year 1990.

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[1] *The actuarial rate of return is technically calculated on a different basis than the total return concept. The actuarial rate involves valuation of fixed income assets at cost rather than market and determines equity values using a five-year moving average of the ratio of market to book value.*

[2] *West Virginia Supreme Court. 1988. Dadisman V. Moore, et al (Case No. 18343). Charleston, West Virginia.*

Table XIX

TEACHERS' RETIREMENT TRUST FUND
SOURCES OF ASSET GROWTH
($ millions)

Fiscal Year	Contributions*	Benefits	Net Contributions	Ordinary Income	Realized Capital Gains	Total Income	Change in Unrealized Capital Gains	Total Return	Year End Assets at Book	Year End Assets at Market**
1984									689.7	659.6
1985	94.9	37.8	57.1	74.2	.6	74.8	77.8	152.6	811.8	866.3
1986	98.0	42.9	55.1	82.1	36.4	118.5	103.6	222.2	993.3	1,126.6
1987	88.1	50.8	37.3	74.7	69.6	144.3	-15.7	128.6	1,174.9	1,295.2
1988	88.9	66.0	22.9	86.1	12.5	98.6	-72.4	26.2	1,298.1	1,345.9
1989	79.2	73.4	2.9	99.5	26.1	125.6	68.6	194.2	1,427.5	1,544.0
1990	88.9	80.8	8.1	110.8	35.7	146.5	9.5	156.3	1,574.7	1,700.7
Total	**538.0**	**351.7**	**183.4**	**527.4**	**180.9**	**708.3**	**171.4**	**880.1**		

Notes:

* *Net of refunds.*

** *Mortgages at cost for fiscal years 1985 and 1986.*

Sources:

1. *Comprehensive Annual Financial Report; Alaska Department of Administration; June 30, 1989 and 1990.*
2. *Public Employees' Retirement Fund, Teachers' Retirement Fund, Annual Financial Report; Division of Retirement and Benefits; June 30, 1988 and June 30, 1985.*
3. *Audited Financial Statements, Alaska Department of Revenue for fiscal years 1986-1990.*
4. *Monthly Financial Reports; June 30, 1985; Treasury Division; Alaska Department of Revenue.*

Table XX

TEACHERS' RETIREMENT SYSTEM
FUNDING RATIOS

Fiscal Year End	Actuarial Ratio [1]	GASB Statement No. 5 Ratio [2]
1977	63.3%	NA
1978	66.9	NA
1979	71.9	NA
1980	66.9	NA
1981	79.1	NA
1982	76.9	NA
1983	79.7	NA
1984	83.9	NA
1985	81.6	83.1%
1986	93.2	102.3
1987	101.2	107.6
1988	98.8	100.6
1989	95.0%	99.2%

Sources:

1. *Actuarial Valuation Report; William M. Mercer Meidinger Hansen, Inc.; various years*
2. *Independent Auditor's Report, Teachers' Retirement System; June 30, 1990*

Investment returns in excess of funding requirements lead to either increased benefits or reduced employer contributions, usually both. Absent enactment of legislation increasing statutory benefits under the plan, retired employees who were hired prior to July 1, 1990 still can benefit directly from high investment returns through Post Retirement Pension Adjustments ("PRPA's"). These are increases in retirement annuity payments granted to offset the cumulative effects of inflation. They are granted each year by the Commissioner of Administration if the condition of the Teachers' Retirement Trust Fund permits. Table XXI traces the PRPA's that have been granted. Retired employees who were hired after July 1, 1990 receive automatic PRPA's which are based on inflation during the prior calendar year and which are not dependent on the financial condition of the Trust Fund.

Beyond the use of high investment returns to augment benefits, their use to reduce employer contributions is in some ways of benefit to employees. Lower contributions can be expected to increase the willingness and ability of employers to make the required payments. A reduced pension burden on employers increases the security of benefits being paid. Of course, even greater security could be had by leaving the amounts in the fund to maintain an overfunded status. However, the Constitutional obligation of employers to provide the benefits makes the question of security less compelling. This is especially so for employers with the power of taxation. If nothing else, reduced contributions increase the possibility of eventual statutory amendments to provide greater benefits.

Table XXI

TEACHERS' RETIREMENT SYSTEM
POST RETIREMENT PENSION ADJUSTMENTS ("PRPA'S")

July 1	PRPA
1967	1.5%
1968	1.5
1969	1.5
1970	1.5
1971	1.5 (compounded)
1972	1.5 (compounded)
1973	1.5 (compounded)
1974	3.0 (compounded)
1975	none
1976	none
1977	10.0
1978	4.0
1979	4.0
1980	4.0
1981	4.0
1982	4.0
1983	none
1984	4.0
1985	4.0
1986	4.0
1987	none
1988	4.0
1990	4.0%

Table XXII displays employer contribution rates for the system since 1980. The fiscal year 1992 rate is only about two-thirds of the rate in the peak year of fiscal year 1985. Rates are influenced by many factors besides investment earnings.

The critical and immense importance of investment earnings can be determined from sensitivity analyses of projected system cash flows prepared by the actuary. They show that a sustained 1.0% higher rate of return (10% instead of the 9% assumed by the actuary) would reduce the employer contribution rate from a projected 12.48% in 2004 to 5.11%. This 60% reduction in employer contributions 15 years from now is projected by the actuary to produce a savings of $67 million for the year. The actuary projects total savings in employer contributions for the next 13 fiscal years to amount to $477 million if the higher rate of return is achieved.

One sense of the scope of the beneficiaries' interests at stake can be gained from the size of the Alaska retirement funds under management by the Department of Revenue in comparison to other tax-exempt funds. Table XXIII shows the ranking of the combined Public Employees' and Teachers' Retirement Trust Funds relative to the assets of other tax-exempt funds.

Table XXII

TEACHERS' RETIREMENT SYSTEM
EMPLOYER CONTRIBUTION RATES [1,2]

Fiscal Year	Percent of Payroll	Fiscal Year	Percent of Payroll
1980	13.82%	1987	13.28
1981	14.86	1988	13.28
1982	15.58	1989	11.16
1983	16.84	1990	11.16
1984	17.42	1991	12.27
1985	17.96	1992	11.87%
1986	17.36		

Notes:

[1] Combined rate for employer and State match.

[2] Changes in actuarial methods and assumptions for the years shown have been as follows:

The actuarial funding method for the years through June 30, 1984 was attained age normal. Effective July 1, 1984, the Plan adopted the projected unit credit actuarial funding method.

Effective July 1, 1980, the plan adopted new actuarial assumptions. The assumed rate of earnings was increased from 6% to 8% per year. The salary increase assumption was changed from 6% per year until age thirty-nine and 5% per year thereafter to 8% for the first five years of employment and 7% thereafter. Health care cost inflation was set at 8%. Turnover and disability assumptions were revised based upon actual experience in 1980 through 1981.

Effective July 1, 1986, the plan adopted new actuarial assumptions. Actuarial funding surpluses are amortized over five years rather than twenty-five years. The assumed rate of earnings was increased from 8% to 9% per year. The salary increase assumption was lowered to 6.5% per year for the first five years of employment and 5.5% per year thereafter. Health care cost inflation was increased to 9%. Turnover and disability assumptions were revised based on actual experience in 1981 through 1985.

The amortization period for the unfunded accrued benefit liability was changed from thirty years to twenty-five years effective July 1, 1981.

Source: *Actuarial Valuation Reports, William M. Mercer Meidinger Hansen, Inc.*

One of the most important duties of the Commissioner of Revenue -- as a result of the fund's trust character, the scale of its assets, the fund's heavy and growing reliance on investment returns, and the importance of superior returns for increased security and benefits for beneficiaries -- is the determination of investment policy and the expert implementation of that policy in the interest of the fund's beneficiaries. This report is one means of assuring the performance of those duties. An informed system membership may be the best safeguard of beneficiaries' interests over the long run.

Table XXIII

TAX-EXEMPT ASSET RANKINGS

Type of Fund	Number of Funds Larger Than Alaska Retirement Funds		Number of Funds Smaller Than Alaska Retirement Funds	
Corporate Pension Funds	35		10301	
Public Pension Funds	36		571	
Union Pension Funds	3		1466	
Endowments	2		499	(including Harvard)
Foundations	1	(Ford Foundation)	747	

Source: The Money Market, Directory of Pension Funds and their Investment Managers, 1990, McGraw-Hill.

Supplementary Fiscal Year 1990 Information

Appended are three schedules containing supplementary information on the Teachers' Retirement Trust Fund for the fiscal year ended June 30, 1990. Accompanying the schedules are an independent auditor's report on, and notes to, the schedules.

The Report of Assets shows the amounts that were invested in different types of investments (book value) and their respective market values and expected annual income flows. The fund's equity investments have relatively low income yields because the income estimates do not include the highly variable capital gains which are usually realized annually on those investments. When capital gains are included, equity investments normally have higher total returns than fixed income investments. On June 30, 1990 the fund's market value of $1,701 million exceeded its book value by $126 million and its income from investments, excluding capital gains, is expected to be about $109 million in the current fiscal year.

The second schedule, Reconciliation of the Fund's Book Value shows sources of the fund's growth in book value during the year. This statement reflects contributions net of benefit payments.

The third schedule, Distribution of Investment Returns by Asset Categories, shows the fiscal year's realized investment returns on each of the different types of investments. Returns on the fixed income investments, which constitute 53 percent of the entire fund, are rather stable and do not vary much from year to year. Equity returns, on the other hand, are highly variable on a year-to-year basis because capital gains can be such an important element of their total returns. This last schedule indicates realized capital gains were the dominant part of common stock returns during 1990. Over the last sixty-three years, capital gains, including unrealized as well as realized gains, have averaged slightly more than half of total returns on common stocks.

The realized rates of return shown in the third schedule are of limited relevance for a fund such as this with a long-term investment horizon. They are included as supplementary information.

KPMG Peat Marwick

Certified Public Accountants

601 West Fifth Avenue
Suite 700
Anchorage, AK 99501

Independent Auditors' Report

State of Alaska
Department of Revenue
Division of Treasury:

We have audited and reported separately herein on the financial statements of the Teachers' Retirement Trust Fund (Fund) as of and for the year ended June 30, 1990.

Our audit was made for the purpose of forming an opinion on the basic financial statements of the Fund taken as a whole. The supplementary information included in Schedules 1 through 3 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such supplementary information on Schedules 1 and 3 has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

KPMG Peat Marwick

August 31, 1990

Schedule 1

STATE OF ALASKA
DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Teachers' Retirement Trust Fund
Report of Assets
June 30, 1990
(000s omitted)

Assets	Percentage of total book value	Book value	Market value	Annual income estimate	Yield to maturity at book value	Current yield at market value
Equities (external managers):						
Real estate equities	5%	$ 82,897	91,676	4,760	5.74%	5.19%
Domestic equities fund	31	479,245	539,685	18,930	3.95	3.51
International equities	7	113,797	123,496	2,549	2.24	2.06
Total equities	43	675,939	754,857	26,239	3.88	3.48
Fixed income (Treasury managed):						
Mortgages	5	82,134	85,140	7,819	9.52	9.18
Corporate issues	14	224,150	227,770	21,384	9.54	9.39
U.S. Treasury issues	28	434,168	474,487	44,068	10.15	9.29
Money market issues	6	96,802	96,967	8,354	8.63	8.62
Total fixed income	53	837,254	884,364	81,625	9.75	9.23
Total investments	96	1,513,193	1,639,221	107,864	7.13	6.58
Cash (interest earning)	1	11,726	11,726	953	8.13	8.13
Total investible assets	97	1,524,919	1,650,947	$108,817	7.14	6.59
Net accruals receivable	3	48,924	48,924			
Contributions receivable	-	831	831			
Total fund assets	100%	$1,574,674	1,700,702			

See accompanying notes to supplementary information.

Schedule 2

STATE OF ALASKA
DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Teachers' Retirement Trust Fund
Reconciliation of the Fund's Book Value
Fiscal year ended June 30, 1990
(000s omitted)

			Percentage of book value change
Investment returns:			
Income earned and received	$ 92,574		62.9%
Capital gains realized	35,720		24.3
Total returns received		128,294	87.2
Accrued income receivable	18,428		
Total returns receivable		18,428	12.5
Total investment returns		146,722	99.7
Less investment expenses		(2,727)	(1.9)
Net investment returns		143,995	97.8
Net contributions received		2,332	1.6
Net contributions receivable		831	0.6
Net change in book value		147,158	100.0%
Fund's book value at June 30, 1989		1,427,516	
Fund's book value at June 30, 1990		$ 1,574,674	

See accompanying notes to supplementary information.

Schedule 3

STATE OF ALASKA
DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Teachers' Retirement Trust Fund

Distribution of Investment Returns by Asset Categories at Book Values

Fiscal year ended June 30, 1989
(000s omitted)

Assets	Income received	Gain (loss) realized	Returns received	Income accrued	Total investment returns	Percentage yield on annual average book values
Equities (externally managed):						
Real estate	$ 4,975	-	4,975	-	4,975	6.13%
Domestic equities fund	16,091	27,063	43,154	1,504	44,658	10.25
International equities	2,854	8,503	11,357	-	11,357	10.93
Total equities	23,920	35,566	59,486	1,504	60,990	9.83
Fixed income (internally managed):						
Mortgages	7,734	-	7,734	573	8,307	9.75
Other debt issues	60,920	154	61,074	16,351	77,425	10.17
Total fixed income	68,654	154	68,808	16,924	85,732	10.13
Total investment returns	$ 92,574	35,720	128,294	18,428	146,722	10.00

See accompanying notes to supplementary information.

STATE OF ALASKA
DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Teachers' Retirement Trust Fund

Notes to Supplementary Information

June 30, 1990

The Fund

The Teachers' Retirement System is a multiple-employer cost-sharing defined-benefit, joint-contributory system established by the State of Alaska for the payment of retirement, disability, health and death benefits to or on behalf of qualified teachers employed by the state, municipalities, school districts, or other political subdivisions of the state. The Teachers' Retirement Trust Fund (Fund) is a separate fiduciary trust fund established by state statutes. The Commissioner of Revenue is the Trustee of the Fund and is responsible for the custody of the assets and for investing the Fund for the best financial interest of the beneficiaries.

(1) Summary of Significant Accounting Policies

The accounting and reporting policies for the Fund conform to generally accepted accounting principles. The more significant accounting policies are as follows:

1. Fiscal year figures are for the Fund's fiscal year ending June 30.

2. Net contributions reflect the amounts the Fund received from the Division of Retirement and Benefits and represent the contributions by employees and employers less the amounts of benefits paid or refunded.

3. Dividend income on domestic equities is accrued on their ex-dividend dates. Interest income on domestic debt securities is accrued as earned. Interest income is shown net of amortization of premiums and accretion of discounts. Accrued interest purchased is charged against income at the time of acquisition. International dividends and interest are recognized for income purposes upon notification by the custodian bank.

4. Book value is stated at cost except that the book values of marketable domestic debt issues are adjusted for amortization of premiums and accretion of discounts. Gains or losses on the sale of marketable domestic debt issues are determined on a specific lot identification basis, and gains or losses on the sale of shares in the Consolidated Domestic Equities Fund are determined on an average lot basis.

(Continued)

5. Investment management costs are separately charged to the Teachers' Retirement System and are not deducted from operating income at the time income is received.

6. Investments are stated on a trade date (ownership) accounting basis, including unsettled transactions as follows: sold securities at proceeds amounts for both book and market values; purchased securities at cost for book value and at closing market prices for market value. Gains and losses on sold securities are recognized as of the trade date.

Market Value

The market value of marketable securities is determined by the custodial agent on the last business day of each month. Real estate equities are valued by the managing firms. The market value of the mortgage investments is estimated by reference to the current secondary mortgage investments as reported by the MGIC Investment Corporation. Their estimate is of limited applicability because of the illiquid status of those investments.

Investments

The Fund's deposits and investments are categorized below pursuant to the Governmental Accounting Standards Board (GASB) Statement No. 3 and GASB Technical Bulletin No. 87-1 to give an indication of the level of safekeeping risk assumed by the Fund at statement date. The Treasury Division does not concur in the interpretation which places international equity investments under Category 2 rather than Category 1.

Deposits

1. Insured or collateralized with securities held by the state or by its custodian in the state's name.

2. Collateralized with securities held by the pledging financial institution's trust department or custodian in the state's name.

3. Uncollateralized.

Continued

STATE OF ALASKA,
DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Teachers' Retirement Trust Fund

Notes to Supplementary Information

Investments

1. Insured or registered for which the securities are held by the state or its custodian in the state's name.
2. Uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent in the state's name.

3. Uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent not in the state's name.

	Category at book value		
	1	2	3
	(000s omitted)		
Deposits:			
Cash (interest earning)	$ 11,726	-	-
Investments:			
U.S. Treasury debt	434,168	-	-
Corporate debt	224,150	-	-
Domestic equities fund	479,245	-	-
International equities	-	113,797	-
Money market issues	96,802	-	-
Mortgages	82,134	-	-
Real estate equities	82,897	-	-
Financial futures	-	-	-
	$ 1,411,122	113,797	-

External Investment Management

Domestic equities are assets of the Fund consisting of shares in the Consolidated Domestic Equities Fund currently under external management by contracted managers who have been directed to emphasize domestic corporate common stock investments. International securities are assets of the Fund currently under external management by contracted managers who have been directed to emphasize international corporate common stock investments. Real estate equities are assets of the Fund consisting of units or shares in real estate equity funds which are under external contracted management by various companies.

(Continued)

STATE OF ALASKA
DEPARTMENT OF REVENUE
DIVISION OF TREASURY

Teachers' Retirement Trust Fund

Notes to Supplementary Information

Yields

Yields on United States Treasury issues and Corporate Fixed Income issues reflect weighted average yields-to-maturity based on either cost values or market values. Yields on domestic equities, international equities, and money market issues reflect current yields based on either cost values or market values. The yields on mortgages reflect a weighted average yield to a ten year average maturity based on cost values and market values. Yields on real estate equities reflect the annualized realized monthly income as related to book values and market values. The yield on the average annual book value is calculated using the average of the beginning and ending of the year book values.

STATISTICAL SECTION

EMPLOYER CONTRIBUTION RATES
FISCAL YEAR 1990

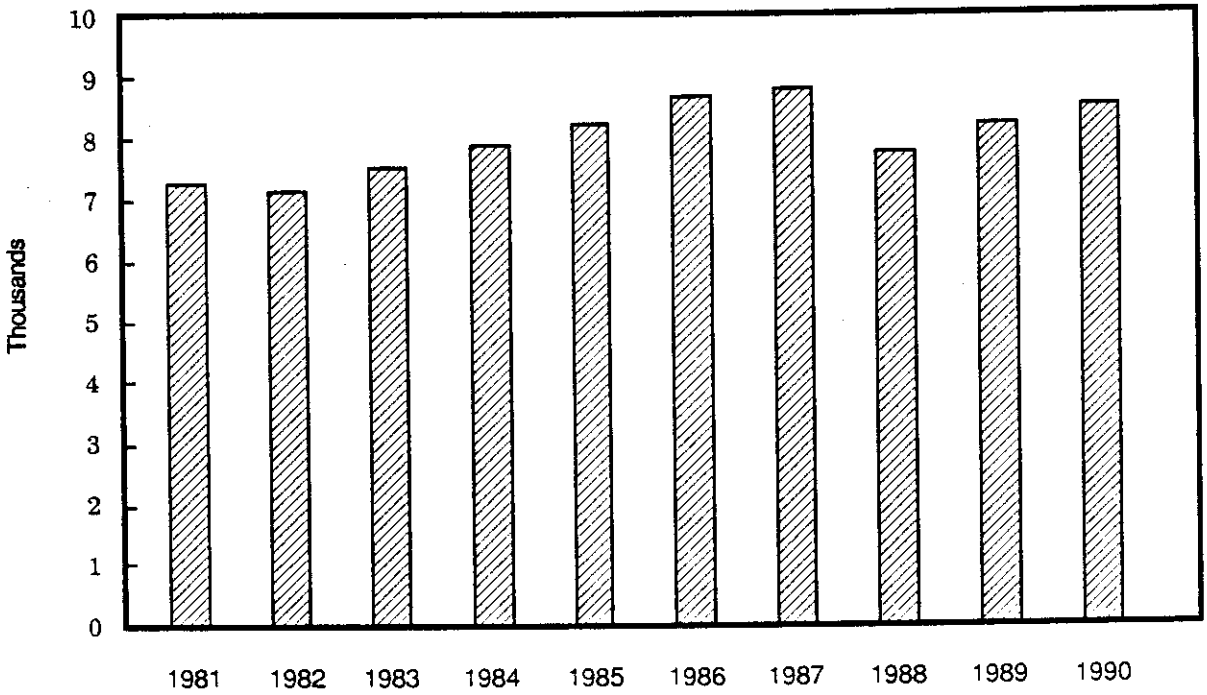
Employer	Percentage
Adak Region School District	11.64%
Alaska Department of Education	
Alaska Gateway School District	
Alaska, University of	
Alaska Geophysical Institute, University of	
Alaska State Legislature	
Aleutian East Borough School District	SAME
Aleutian Region School District	
Anchorage School District	
Annette Island School District	
Association of Alaska School Boards	
Bering Straits School District	FOR
Bristol Bay Borough School District	
Chatham School District	ALL
Chugach Region School District	
Copper River School District	
Cordova School District	
Craig School District	EMPLOYERS
Delta-Greely School District	
Dillingham School District	
Fairbanks North Star Borough School District	
Galena School District	
Haines Borough School District	
Hoonah School District	
Hydaburg School District	
Iditarod Area School District	
Juneau Borough School District	
Kake School District	
Kashunamiut School District	
Kenai Peninsula Borough School District	
Ketchikan Gateway Borough School District	
Klawock School District	
Kodiak Island Borough School District	
Kuspuk School District	

EMPLOYER CONTRIBUTION RATES
FISCAL YEAR 1990

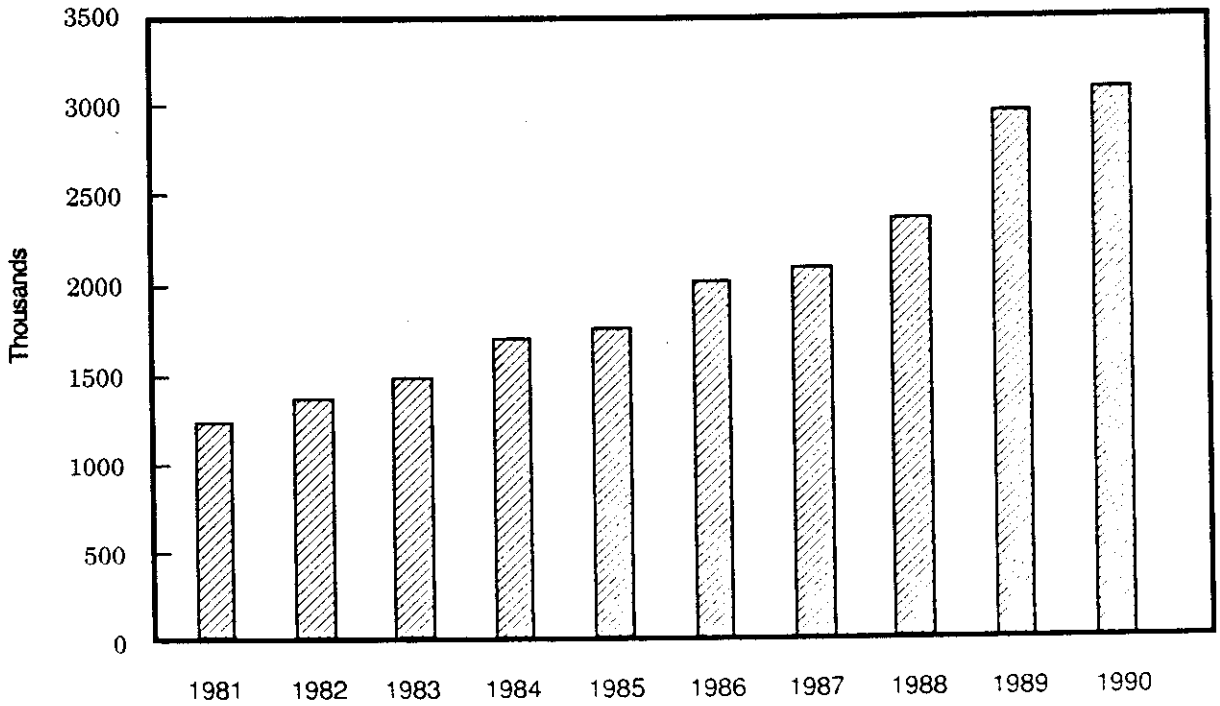
Employer (continued)	Percentage
Lake and Peninsula School District	
Lower Kuskokwim School District	
Lower Yukon School District	
Matanuska-Susitna Borough School District	11.64%
National Education Association	
Nenana School District	
Nome School District	
North Slope Borough School District	
Northwest Arctic School District	
Pelican School District	
Petersburg School District	
Pribilof School District	
Railbelt School District	
Saint Mary's School District	
Sitka Borough School District	
Skagway School District	
Southeast Island School District	
Southeast Regional Resource Center	
Southwest Region School District	
Special Education Service Agency	
Tanana School District	
Unalaska School District	
Valdez School District	
Wrangell School District	
Yakutat School District	
Yukon Flats School District	
Yukon-Koyukuk School District	
Yupiit School District	

SAME FOR ALL EMPLOYERS

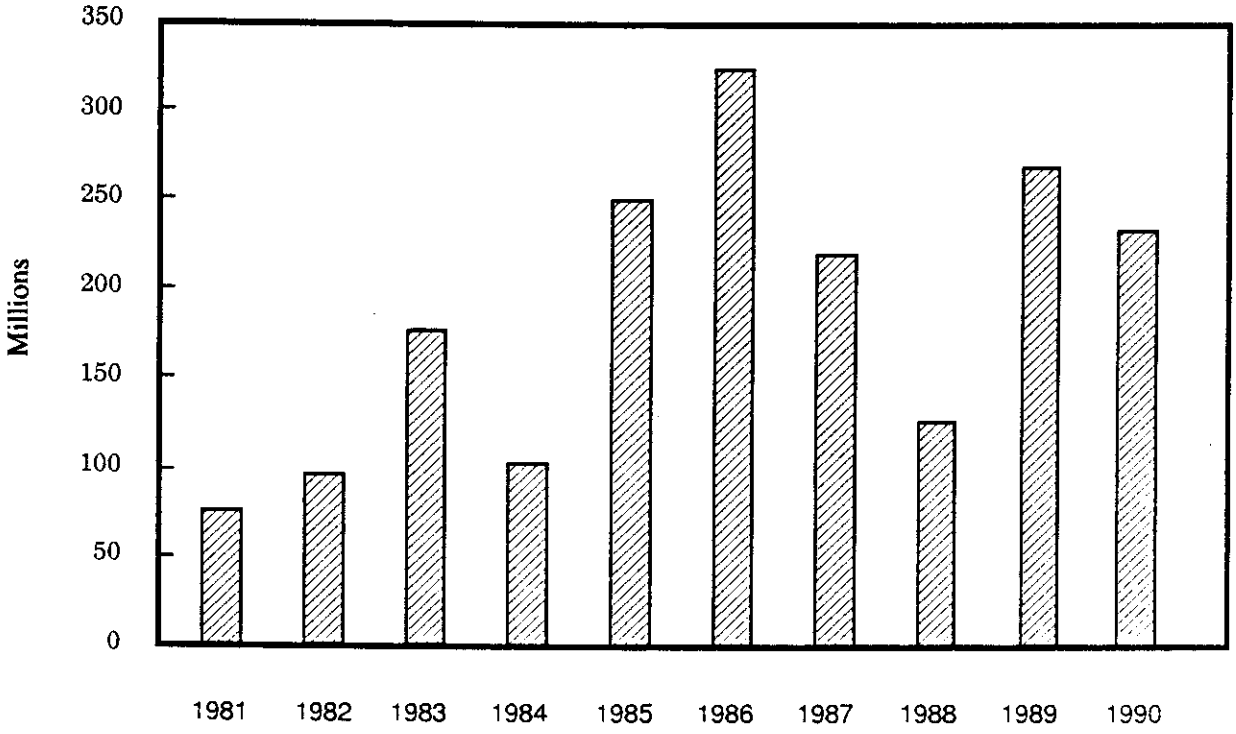
ACTIVE MEMBERS
As of June 30



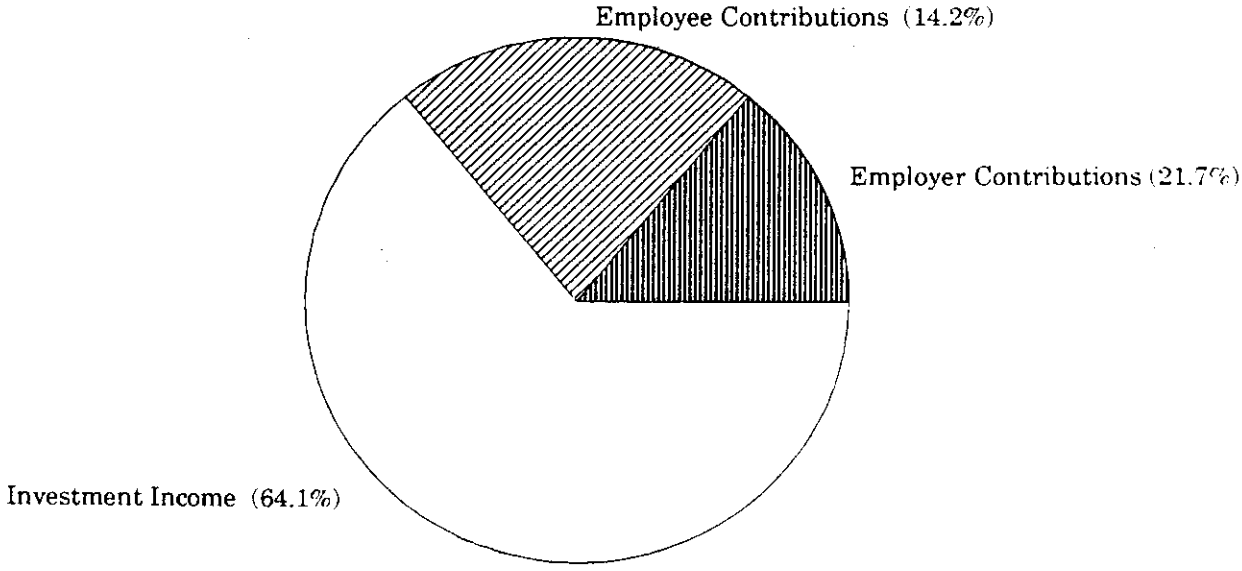
RETIREES AND BENEFICIARIES
As of June 30



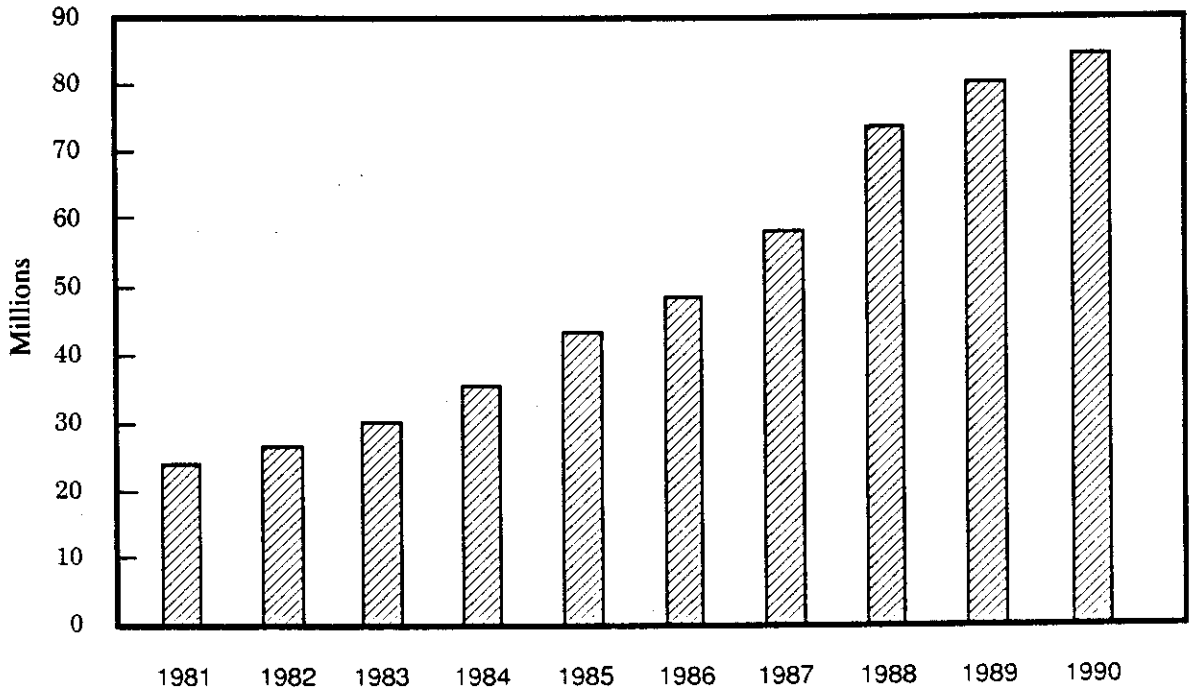
REVENUES
10 Year Comparison



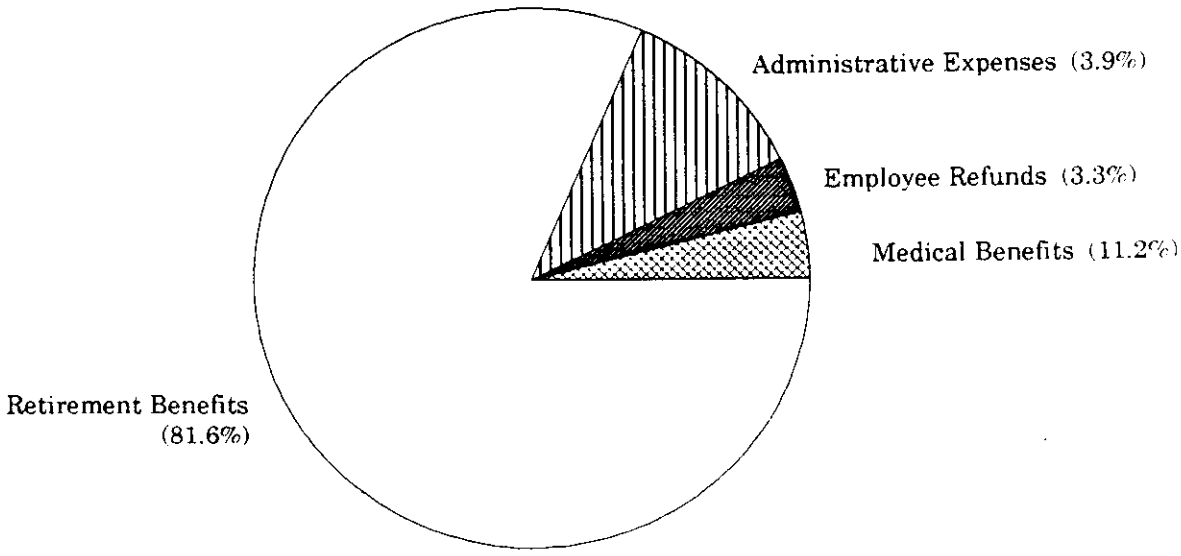
INCOME FOR THE YEAR ENDED
June 30, 1990



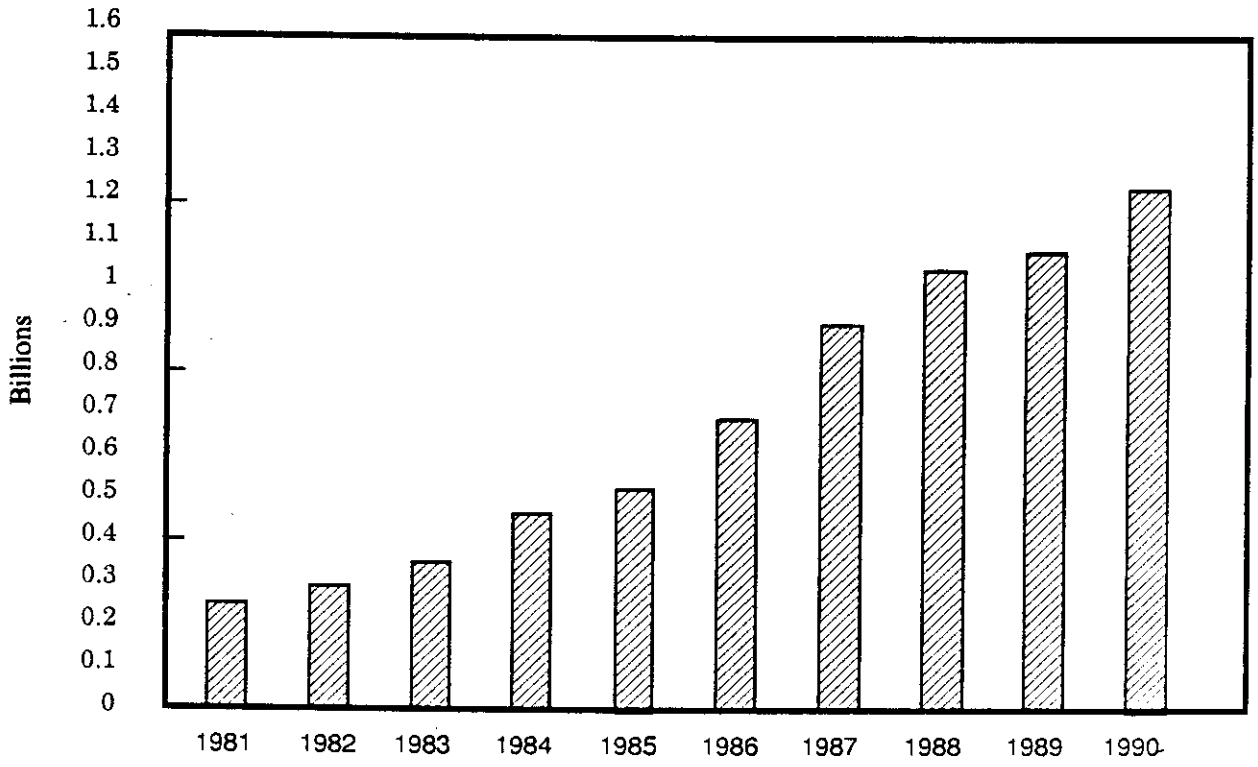
DISBURSEMENTS
10 Year Comparison



DISBURSEMENTS FOR THE YEAR ENDED
June 30, 1990



NET ASSETS
10 Year Comparison



FY 90 COMPOSITION OF INVESTMENTS